IDA

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Frequency and Nature of Military Operations

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PREFACE

The research for this task was conducted by the Institute for Defense Analyses in fulfillment of the task entitled "Frequency and Nature of Military Operations," sponsored by the Office of the Assistant Secretary of Defense (Strategy and Requirements) in support of the Quadrennial Defense Review (QDR).

The authors also wish to thank the reviewers of this paper, IDA staff members David R. Graham and An-Jen Tai. In addition to the formal reviewers, three other IDA colleagues, Michael Leonard, Robert E. Schafer, and James S. Thomason, offered helpful suggestions and comments, while both Martin A. Liddy and John C. Tillson provided advice and arranged for us to make use of data and other material assembled for two other projects that they directed.

This project had a compressed schedule necessitated by the need to reflect its results in the then-ongoing QDR. For that reason, we relied heavily on the assistance of a number of other organizations and individuals in obtaining access to data. These included Maren Leed and Glenn A. Gotz of the RAND Corporation, who graciously made available data they were compiling for a project sponsored by the Office of the Under Secretary of Defense (Personnel and Readiness); Jacqeline R. Henningsen of the Office of the Director (Program Analysis and Evaluation) who similarly provided data held by PA&E and also provided helpful suggestions and input into our research; Renee Lajoie of Defense Forecast International who made data available; and Katherine Hoffman and Steven Kurth of the Joint Warfare Analysis Center, who also made data available. The research benefited significantly from their assistance; they are not, of course, responsible for any errors or imperfections that remain. Thanks are also due to Eileen Doherty and Burnette A. Aylor of the IDA staff for their assistance in the editing and production of the paper. And finally, thanks are due to Michele A. Flournoy, Deputy Assistant Secretary of Defense (Strategy), Andrew Hoehn, Principal Director of her office, and Col. John Priddy, for their direct sponsorship and guidance throughout the project.

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Project T-K6-1535

Wade Hinkle, Stephen Biddle and
Johnathan Wallis

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The research for this task was conducted by the Institute for Defense Analyses in fulfillment of the task entitled "Frequency and Nature of Military Operations," sponsored by the Office of the Assistant Secretary of Defense (Strategy and Requirements) in support of the Quadrennial Defense Review (QDR). Design of the research was also closely coordinated with the Office of the Director (Program Analysis and Evaluation), which used the results in support of its QDR-related work.

Because of the tight deadlines associated with the QDR, most of the initial work under this project was initially presented in briefing form to the sponsors.[1] This document presents a revised and annotated synthesis of those briefings for the use of our sponsors in their future work and as a research resource for similar work by other Defense Department offices or contractors. To enhance its value as a research tool, a completely annotated codebook is printed as an appendix.

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1 Wade Hinkle, Stephen Biddle, and Johnathan Wallis, "The Frequency and Nature of U.S. Military Operations: Midterm Findings," March 17, 1997; "Historical Demand for Military Capabilities," April 10, 1997, "Historical Demands for Military Capabilities: Continuation Briefing," April 29, 1997, "Frequency and Nature of Military Operations: Project Review Briefings," May 14, 1997 (Alexandria, VA, IDA).

Outline

- Objective of the project
- Approach
- Results
- Remaining steps

The document is organized in four parts. First we describe the project's purpose and objective. Second we outline our approach for meeting that objective. Third we discuss our analytical findings, and fourth, we suggest a series of possible follow-on activities motivated by the results obtained to date.

Objectives

- Review historical record of U.S. military operations, and using that analysis
- Critique OSD assumptions on frequency, duration, size, and nature of future military operations
- In addition, recommend
  - How such data should be collected in the future
  - How a more accurate and useful database of past activity can compiled

The project has two main and one secondary objectives. The first main objective is to review the historical record of U.S. military operations, and determine what (if any) patterns can be discerned that could assist OSD in planning. In particular, OASD (S&R) has been developing a series of planning factors for the assumed frequency, duration, size and nature of future U.S. military operations. These planning factors are intended for use as rough guides in force sizing and design, and to date have been based on a combination of professional judgment; initial, first-order historical analysis; and a limited number of more detailed analyses of particular mission areas. Given this, the first-order job for this study is to compile whatever systematic, comprehensive information is available on the actual frequency, duration, size and nature of past U.S. military operations across mission areas.

The second main objective is to critique OSD's tentative planning factors on the basis of this information. This critique is to include not just a comparison of assumed and observed values, but also an evaluation of the importance and implications of any divergences found, and recommendations as to any changes in assumptions that might be warranted as a result.

In addition, a secondary objective is to propose improvements in data development so as to enhance the Department's ability to perform such analyses in the future. As will be seen, poor data quality is a major barrier to effective analysis today. This suggests at least two potentially useful avenues for improvements to enhance the quality of future analyses. The first is to document new U.S. military actions more effectively as they occur. If initial record-keeping is done with an eye to the needs of eventual historical use, future databases will be much more complete and much easier to assemble. The second avenue for improvement is the development of a more satisfactory database on past U.S. activity. This is complicated by the shortcomings of past record-keeping, but more can be done with the available records than has yet been accomplished. A final objective of this study is to propose means for doing so.

While all three aims have been pursued in the study, this document will address only the two primary objectives outlined above; discussion of the third has been undertaken informally with the sponsor and will not be documented here.

The reader is about to sift through nearly 150 pages of slides and text analyzing what turns out to be a very incomplete set of data. As stated above, our primary analytical conclusion is that the data are of too poor a quality for use in meaningful planning. Unfortunately, to demonstrate the poor quality of the data, we were forced to dissect it in some detail. This creates the hazard that the overall impression from the weight of the presentation is that the regression results and "recommended" planning factors reported are the main product and main message of this report. To repeat, they are not. *Rather, the main message is that greater effort must be made to assemble an analytically-sound database if frequency and duration factors are to be used for planning purposes in the future.*

Structure of the research

- Collect, assess and prepare existing data
  - Identify relevant databases
  - Check for errors; rectify where possible
  - Amalgamate?
  - Code refined data by mission
- Characterize past operations and recommend planning factors
  - Frequency, duration, mission, size
  - Averages, ranges
- Compare to S&R planning factors
- Post-QDR, recommend improvements in data collection and use of historical data

Our approach is in three parts. The first is to collect, assess and prepare existing data. The project's quick-reaction nature precluded new historical research to develop original data. Our scope is therefore limited to existing databases. In particular, four specific tasks were performed to prepare the data for analysis. First we identified relevant databases and evaluated their potential utility for our purposes. Second, we checked these for errors. As will be seen, the error rate proved quite high. Where possible, we corrected the errors we found, but only where we could do this without significant historical research. Third, we investigated the possibility of amalgamating the several databases into one master dataset (we ultimately rejected this, for reasons discussed below). Fourth, we assigned each event in each database a mission code, using a mission-type taxonomy provided by OASD (S&R) (and described below). This enabled us to break down frequency, duration, and so on according to the mission categories used by the study sponsor for developing planning factors.

The second part of our approach is to analyze these data statistically to characterize past operations and recommend corresponding planning factors. Ideally, we seek planning factors for the frequency, duration, and size/type of forces used for each mission type. Data limitations, however, have restricted us mostly to a focus on frequency and duration alone. For these, we provide static means and standard deviations from the relevant historical data. Since our ultimate purpose is to project future activity levels, however, we also provide simple trend analyses to indicate whether the static historical averages are artifacts of changing underlying phenomena. Where strong trends are identified, these are used as the basis for our recommendations; otherwise, the static descriptions were used (for a more detailed discussion of procedures used for developing recommendations, see slide 18 below).

The very demanding timetable associated with the project largely limited trend analysis to ordinary least-squares (OLS) regression analysis; other methods were considered for a few, key mission areas (and these are detailed below), but an exhaustive or definitive statistical examination has not been attempted. While it is far from clear that the quality of the available data would have sustained a more extensive analysis, the treatment below is not meant as a substitute for this.

Finally, we compare the resulting recommendations to the initial OASD (S&R) planning factors, evaluate the relationship between the two, and discuss the implications of this.

Databases

- **IDA** CORM overseas deployments
  - 1983-94, all-Service, some duration and size information
- **Army** CAA Force Employment Study
  - 1975-90, Army-only, by duration, size, unit, includes CONUS
- **JWAC** OOTW database (still under development)
  - 1975-93, all-Service, duration, some description
- **DFI** Air Force deployments
  - 1983-96, AF-only, duration, some ops statistics
- Not used
  - RAND P&R 9/93-12/96 database
  - IDA MOOTW alternatives
  - CNA (already included in both IDA and JWAC)
  - ORNL 1990-96 OOTW

A surprisingly large number of independently-compiled databases exist on historical U.S. military activity. The content, structure, sources, and scope of these databases vary widely. They were developed for a variety of purposes by a variety of organizations, and few make explicit reference to the existence of any of the others. We considered eight of these for use in this study, and ultimately settled on four: a database developed by IDA for the Commission on Roles and Missions of the Armed Forces (CORM);[2] The U.S. Army Concepts Analysis Agency's (CAA) Force Employment Study database; a database on operations other than war (OOTW) under development by the Defense Department's Joint Warfare Analysis Center (JWAC); and, a database on Air force deployments developed under contract by Defense Forecasts, Inc. (DFI), for the U.S. Air Force Studies and Analysis Agency.

The IDA CORM database covers a period between 1983 and 1994, and provides data on all four Services. It categorizes the duration of a deployment as 0-30 days, 31-90 days, 91-180, or, for deployments longer than 180 days, provides the actual duration in days. The size of the force deployed is characterized only as in categories (minor, medium, large[3]) with associated country rules.

The Army CAA Force Employment Study database nominally covers events between 1975 and 1990 (though in fact no events that began after 1989 are actually included). Only Army deployments of over 50 men are included, but those deployments are described in considerable detail, including the unit name and personnel strength for all involved units and the duration of each unit's specific involvement. Deployments for non-routine operations within CONUS are included (e.g., disaster relief or forest fire fighting).[4]

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2 The CORM was a federal advisory commission created by the FY 1994 Defense Authorization Act to review the assignment of roles and missions to the various military services. See U.S., Commission on Roles and Missions of the Armed Forces, *Directions for Defense: Report of the Commission on Roles and Missions of the Armed Forces* (Washington, DC: 1995).

3 James S. Thomason, *et. al., Evolving Service Roles in Presence Missions*, IDA Paper P-3146 (Alexandria, VA: Institute for Defense Analyses, August 1995). See Appendix A, page A-78, infra., for definitions of sizes used in the IDA database, or pp. A-2-A-4 of the IDA paper.

4 U.S. Army Concepts Analysis Agency, *Force Employment Study*, Study Report CAA-SR-91-4 (Bethesda, MD: February 1991).

The JWAC OOTW database is still under development, but is sufficiently complete to warrant inclusion. It covers the years 1975-1993, includes all four Services, provides start and end dates for each operation, and includes a brief narrative description of at least some included events.[5]

The DFI Air Force deployments database covers the period 1981-1996, and is limited to Air Force operations only. It provides durations for covered events, and, for at least some events, includes some partial information on the size and nature of the forces deployed (mostly sortie counts and equipment types, but no personnel totals).[6]

Four databases were evaluated but not included in the study. RAND is in the process of developing a database on U.S. military activities conducted between September 1993 and December 1996.[7] Developed under sponsorship from OUSD (P&R), this database will eventually provide high resolution coverage of all four Services and will provide extensive information on the nature of the forces employed, as well as the duration and initiation times of operations. For now, however, the database is in a very partial state of completion and as a result provides very uneven coverage. Moreover, for our purposes the time period is too short to offer much evidence of potential trends.

IDA developed a database on Military Operations Other Than War (MOOTW) to support a study on MOOTW alternatives.[8] No information is provided on the duration or nature of operations, however, and much of the information provided concerns non-U.S. activities, which are beyond this study's scope.

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5 Joint Warfare Analysis Center, "Military Operations Other Than War Case Histories and Database," manuscript and electronic database, March 14, 1997 version.

6 W. Bajusz, R. Lajoie, and T. Stukey, *The Use of USAF Assets for Presence: Final Report* (DFI International, November 15, 1995).

7 Maren Leed, Jennifer H. Kawata, and Glenn A. Gotz, "RAND Deployment Database: Interim Documentation," RAND Project Memorandum PM-654-OSD, April 1997.

8 Martin A. Lidy, William J. Sheleski, Edward F. Smith, Jr., and Krishna Gidwani, *Alternative Multinational Force Capabilities for Operations Other Than War*, IDA Document D-1775 (Alexandria, VA: Institute for Defense Analyses, September 1995).

The Center for Naval Analyses, while it has not developed a machine-readable database as such, has nevertheless published a variety of valuable compendia of U.S. Naval activities of relevance to our concerns.[9] While useful, these results are fully reflected in the IDA and JWAC databases, which both use the CNA reports as basic sources for their descriptions of Navy deployments.

Finally, Oak Ridge National Laboratory has produced a database on U.S. OOTW activity between 1991 and 1996.[10] Coverage is spotty, however; prior to 1990, the database has only a few operational entries, no duration data is provided, and the time period is covered by the data too short to provide much perspective on longer term trends in activity levels.

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9 See Adam B. Siegel, and Scott M. Fabbri, *Overview of Selected Joint Task Forces, 1960-1993*, (CAN) 93-0007, FTC Interim Report 93-7 (Alexandria, VA: Center for Naval Analyses, September 1993); Adam B. Siegel, *The Use of Naval Forces in the Post-War Era: U.S. Navy and U.S. Marine Corps Crisis Response Activity, 1946-1990*, CRM 90-246 (Alexandria, VA: Center for Naval Analyses, February 1991); Adam B. Siegel, *A Sampling of U.S. Naval Humanitarian Operations*, CIM 132 (Alexandria, VA: Center for Naval Analyses, November 1990).

10 D.S. Hartley, III, *Operations Other Than War: Requirements for Analysis: Tools Research Report*, K/DSRD-2098/D (Oak Ridge, TN: Data Systems Research and Development Program, December 1996).

Error Correction

- Cross-checked events
  - Many duplicates and internal inconsistencies
    - Deleted duplicates
    - Checked data tables against computed summary statistics; corrected math, entry errors
    - Eliminated, e.g., negative durations, obviously incorrect (10,000-day durations, etc.)
    - Deduced corrections where possible (e.g., errors in unit-size lumps)
  - Many incomplete records
    - Completed where possible by cross-checking; otherwise omitted fro statistical computations
- Interviewed database designers (or their successors)
  - Reviewed data sources, construction procedures, counting identified inconsistencies

As we did no original historical work ourselves, our efforts to identify and correct errors consisted of cross-checking events between databases, and discussions with the databases' designers. This cross-checking uncovered a variety of problems.

Many databases, for example, contained duplicate entries. We eliminated all but the initial entry for any single event.

We also encountered several forms of internal inconsistency. In several cases, study authors had provided summary statistics purporting to describe their databases' contents; these did not always match the data itself. Some databases implied negative durations for some events (i.e., start dates later than end dates). Others provided obviously incorrect values (e.g. 10,000 day durations).

The reasons for the inconsistencies were sometimes apparent by inspection.[11] Where this was the case, we corrected the math or data entry errors responsible for the problem. In other instances, corrections could be deduced with high likelihood from the nature of the error (e.g., undercounts or overcounts of personnel strengths by exact multiples of standard unit sizes). In these cases, we entered the apparent correction. Where correct values were known by the study team or available with limited effort, these were entered. In many cases, however, no evident correction was available; in such cases the events were deleted.

Many records, while not incorrect, were nevertheless incomplete. Gaps in data were filled where possible by cross-checking from other databases, or by adding values where known to the study team or otherwise readily available. Where this was impossible, the missing entries were omitted from the statistical computations.

Where possible, we interviewed either the designers of the database or their successors. These interviews covered data sources, database construction procedures, and counting rules. In several cases, these identified further inconsistencies, or confirmed suspected ones. Where possible, corrections were obtained.

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11 All corrections or changes to the databases are noted in the codebooks printed in the Appendix.

Error Correction: Results

- Many entries incorrect and/or incomplete

Database	Records	Orig in error	Fixed	Still in error
IDA	103	9	7	2
JWAC	235	116	63	53
CAA	988	103	71	32
DFI	406	21	5	16
Totals	1,732	249	146	103

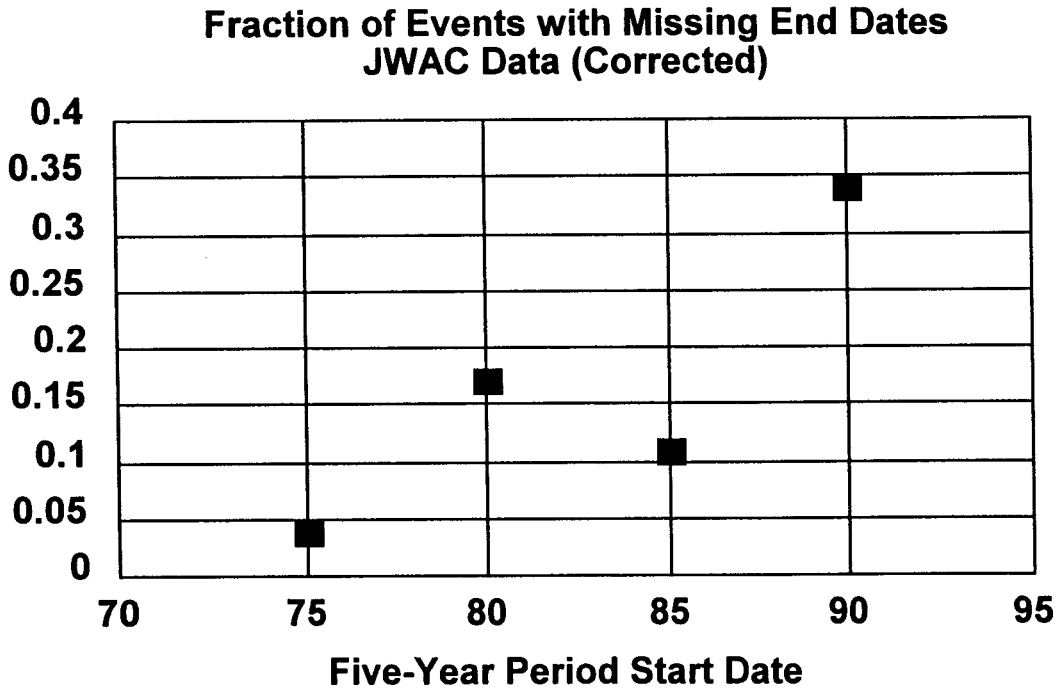
- Also many wholly missing events
- Suspect that omissions and remaining errors may be systematic
  - Example next slide: error rate in JWAC data increases linearly over time
- Therefore, opted to keep databases intact rather than adding apparently missing events and proceeded to code data by mission (categories shown on slide 9)

This slide presents the net total error and correction rates resulting from the procedures described on the previous slide. In all, the three databases contain some 1,732 event records (and slightly fewer than 32,000 discrete data items). Our review of these data found about 15 percent of the records to contain at least one error. Of these 249 errors, we were able to correct 146 (or about 60 percent of the erroneous records), leaving 103 that we were unable to rectify. In addition to these, we suspect that there are many wholly missing events -- which the error identification procedure outlined above could not identify systematically.

There is thus a substantial volume of uncorrected error remaining in the data. Moreover, there is reason to suspect that the omissions and errors may not be randomly distributed. As the next slide shows, at least some of the errors appear to be systematic in nature: the error rate in the JWAC data, for example, increases consistently over time.

Example: JWAC Database

- Error rate correlates with time



This slide provides a time-series scatterplot showing the rate of occurrence of one common form of error in the JWAC database: events with missing end dates. The fraction of total events encountering this error is plotted by five-year intervals, and shows a strong positive correlation (r^2=0.73) the null hypothesis of no relationship between time and error rate can be rejected at the 0.14 level.

Were the errors purely random, the result would be to add noise to the underlying signal in the data, reducing our ability to perceive real trends and differences, but allowing us to be confident nevertheless that any patterns that did emerge were true. Where errors are correlated with important variables (like time), however, there is a danger that results could be biased rather than merely less clear. At least some of the errors in the datasets available to us here appear to suffer from such non-random error. As a result, trends in frequency or duration that appear to be strongly supported by these data could thus be misleading in direction or magnitude or both. While it may still be possible to draw meaningful insights from such data, the danger of bias due to significant rates of nonrandom errors in variables must be taken into account in interpreting the results.

Data Preparation

- Coded all events using S&R-provided mission categories

1	Non-combatant evacuation	NEO
2	Small crisis response and small show of force	SCR
3	Humanitarian intervention peacekeeping	HIP
4	CONUS humanitarian assistance	CHA
5	OCONUS humanitarian assistance	OHA
6	No-fly zones	NFZ
7	Maritime sanctions and migrant operations	MMO
8	Large crisis response and large show of force	LCR
9	Intervention	INT
10	Large peace operation	LPO
11	Interpositional peacekeeping	IP
999	Other	Other

The next step in preparing the data for analysis was to code each event as one of 12 mission types provided by OASD (S&R).[12] These mission types, and their definitions, are as follows:

OASD (S&R) Counting Rules for Coding Small-Scale Contingencies

Mission	Code	Code #	Definition	Comments
Non-permissive NEOs	**NEO**	**1**	Overseas evacuations without consent of host country. Involves use of force or preparations to do so, and/or use of DoD assets for lift or logistics. Does not include administrative evacuations that may have small levels of DoD support (3 or fewer aircraft, 40 or less personnel).	
Small Crisis Response/ Small Show of Force	**SCR**	**2**	Purposeful deployment of forces or movement of forward deployed forces in preparation for imminent use or due to generalized unfavorable change in regional security environment. Does not include scheduled forward deployments of forces (such as CVBGs), nor scheduled training or exercises. Includes freedom of navigation challenge operations and operations in support of FON (such as EARNEST WILL). Distinguished from large crisis response by size. SCR includes all forces < CVBG + ARG	
Humanitarian intervention peacekeeping	**HIP**	**3**	Operations to alleviate civilian suffering arising from conflicts (external or internal) to which the U.S. is not a party. Involves use of force or willingness and preparations to do so. Examples: PROVIDE COMFORT, Somalia, PROVIDE PROMISE. Operational duration determined by how long U.S. forces are present (not how long U.N. or coalition forces are).	Distinguished from mission 10 by lack of intent to achieve overall political settlement.

12 The resulting codings are included in the codebook in the Appendix.

CONUS Humanitarian Assistance	**CHA**	**4**	Operations in the United States to alleviate suffering caused by natural or man-made disasters.	
Overseas Humanitarian Assistance	**OHA**	**5**	Operations abroad to alleviate suffering caused by natural or man-made disasters. Conducted only with consent of host country.	
Independent No-fly Zone Operations	**NFZ**	**6**	Operation to prevent air operations by others in given exclusion zones outside the context of a MRC or other large-scale operation. Includes only operations whose primary purpose was a no-fly zone, but does encompass separate named operations whose purpose was no-fly enforcement as part of a larger, other-named operations.	See note below on missions with multiple objectives.
Maritime Sanctions Enforcement Operations or Migrant Operations	**MMO**	**7**	Independent maritime sanctions enforcement: operations to stop seaborne flow of proscribed material to prohibited areas. Includes only named operations whose primary purpose is maritime interdiction in and of itself, but does encompass separate named operations whose purpose was sanctions enforcement as part of a larger, other-named operations. Migrant operations: preventing would-be illegal migrants from reaching the United States and care for and repatriation of those intercepted. Includes only named operations whose primary purpose is migrant interdiction or care in and of itself, but does encompass separate named operations whose purpose was migration enforcement as part of a larger, other-named operations.	See note below on missions with multiple objectives.
Large Crisis Response/ Large Show of Force	**LCR**	**8**	Same as small crisis response except in size. Here, forces >CVBG + ARG, and/or bde, and/or wing	
Intervention	**INT**	**9**	Interventions: operations to depose a hostile regime or protect or install a friendly one. Examples: JUST CAUSE, URGENT FURY.	

Large Peace Operation	**LPO**	**10**	Peace operations involve one or more of the following elements: monitoring of peace agreements with an intention to enforce some or all of the agreement if violated; imposition of cease-fires on potentially unwilling adversaries; and interposition between adversary forces. Example: IFOR. Also includes operations in aftermath of intervention to provide public safety and services while transitioning to (and creating if necessary) local authority (example: PROMOTE LIBERTY). For both types of operations, duration counts only participation of U.S. forces in cases where operation is multinational or international. Examples: ISLAND BREEZE in Grenada, JTF 190 in Haiti.	
Interpositional peacekeeping	**IP**	**11**	Consensual, traditional peacekeeping operations to monitor and verify implementation of agreements between consenting parties (such as in case of MFO) and also to participate in directly and to facilitate development and implementation of agreements (such as ONUSAL, UNTAC).	
Other	**Other**	**999**	Miscellaneous operations not otherwise coded. Includes counter-narcotics operations, training operations where present in databases.	
N.B.: A number of operations have multiple purposes. For example, PROVIDE COMFORT was fundamentally for the purpose of stopping Iraqi depredations against the Kurds (so it was non-permissive humanitarian assistance). But it was also a show of force and/or crisis response, and it entailed an extensive no-fly zone. For operations with more than one purpose, we will code all the purposes that can be identified, but count them once and once only under their primary mission purpose. So PROVIDE COMFORT will count as non-permissive humanitarian assistance, while SOUTHERN WATCH will count as no-fly enforcement (even though it had a humanitarian justification and was also a show of force).				

One problem became immediately apparent as we began coding the data. Some events that were included in one database were missing from operations. This made combining one databases for use as one amalgamated set of data problematic. For reasons explained in the next series of slides.

Amalgamation?

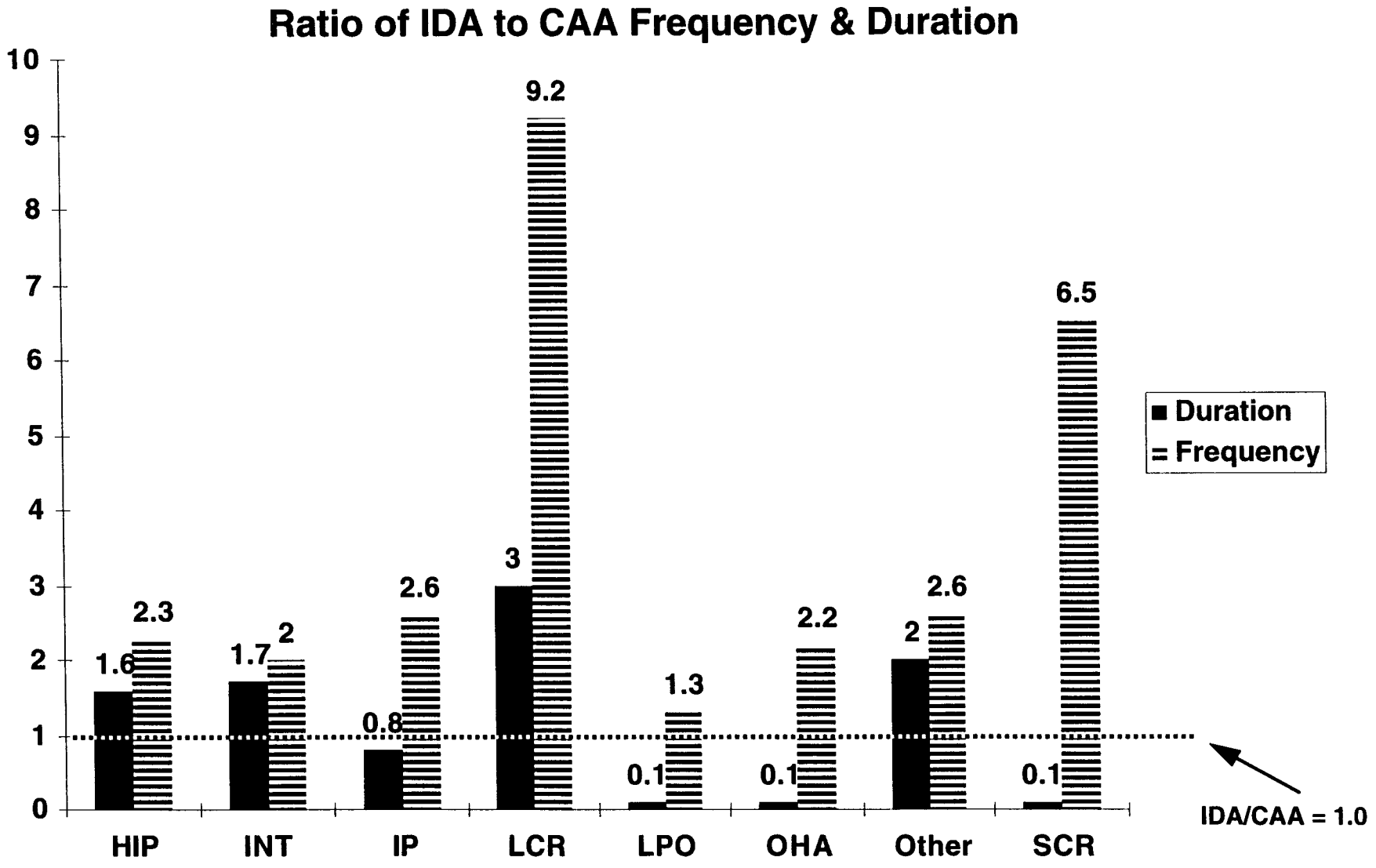
- Are databases' structures similar enough to combine?
- What accounts for differences?
  - Differing time periods?
  - Differing counting rules for including/excluding events?
    - Services covered
    - Size cutoffs
    - Differing organizational definitions of "operation" (e.g. USA "away from home" vs. USN "routine presence or operation")
  - Errors of omission, commission?
- Next three slides show investigation of feasibility of amalgamating databases by controlling for differences
  - Example uses IDA and CAA databases
  - As slides show, significant unexplained variation remained accounting for all known differences
  - Concluded that amalgamating databases was not appropriate

We then considered whether it would be possible to build a single master database by amalgamating the IDA, JWAC, CAA and DFI data. The key issue in this determination was whether the databases' structures were similar enough to combine. Merely to lump together fundamentally different data structures would be to risk creating serious additional sources of bias.

Unfortunately, the documentation available for describing the structures of the respective databases is partial at best. It was thus not possible to assess their comparability directly. We turned to a variety of indirect tests as a result. As a first-order assessment, we began by comparing the databases' mean values for frequency and duration by mission type. The results, given in slides 15-17, indicated large apparent differences across databases. We next attempted to account for these differences. Were they due, for example, to differences in time period or services covered? If so, the apparent divergence in values would not reflect any fundamental difference in underlying structure; by combining each into a single all-Service database with a single time period, eliminating duplicates and excluding values outside that interval, the result would be a valid master dataset. If, on the other hand, the differences were due to differing size cutoffs for inclusion, differing organizational definitions of activity, or systematic errors of omission or commission, then such simple controls would be impossible and the fundamentally different structures of the respective databases would be ill-suited to amalgamation.

As an example of this process and its results, the next several slides provide such an investigation for two of the four databases: IDA and CAA. As these slides show, significant unexplained variation remained between the two even after accounting for known differences in Service coverage and time period. The result thus suggests that either systematic error or significant structural dissimilarity are responsible, and indicate that amalgamation would be inappropriate. We thus opted to keep the databases separate from one another, and analyze each independently.

An Illustration: IDA and CAA

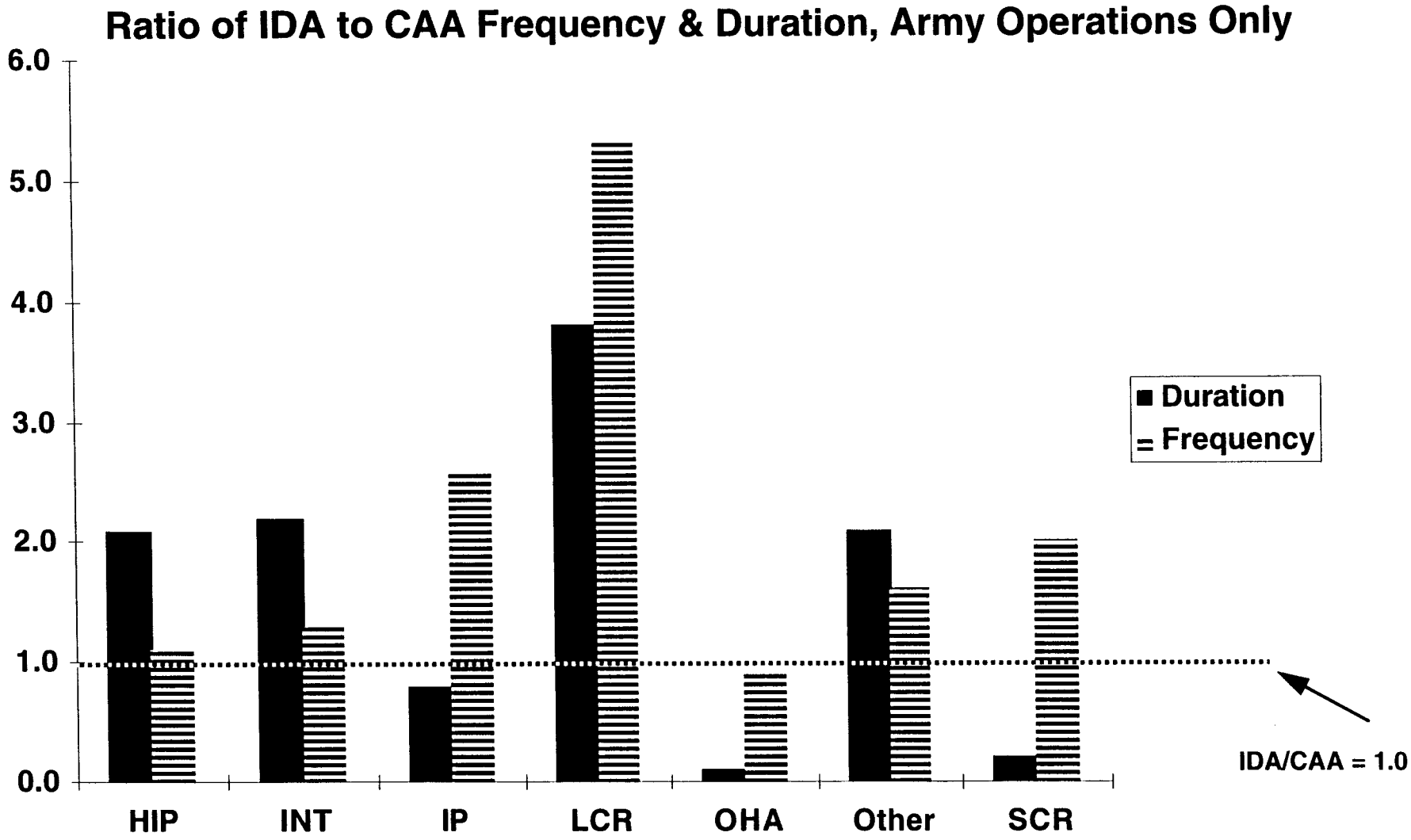


Note only 8 of 12 mission areas are common to the two databases (no MMO, NEO, NFZ, and CHA in CAA)

This slide provides the ratio of values from the IDA and CAA databases for mission frequency and duration by mission type.[13] The results indicate wide divergence between the databases. In no case do the two databases provide the same value, whether for duration or frequency. For only two of the 16 comparisons are the databases' values within 30 percent of each other; for 12 of the 16, the databases values differ by more than a factor of two; for 5 comparisons, the values differ by more than a factor of five.

13 Note that only 8 of the 12 mission areas considered are common to both databases. In particular, the CAA database contains no examples of maritime or migrant operations, noncombatant evacuation operations, no-fly-zone enforcement, and CONUS humanitarian assistance.

Controlling for Service

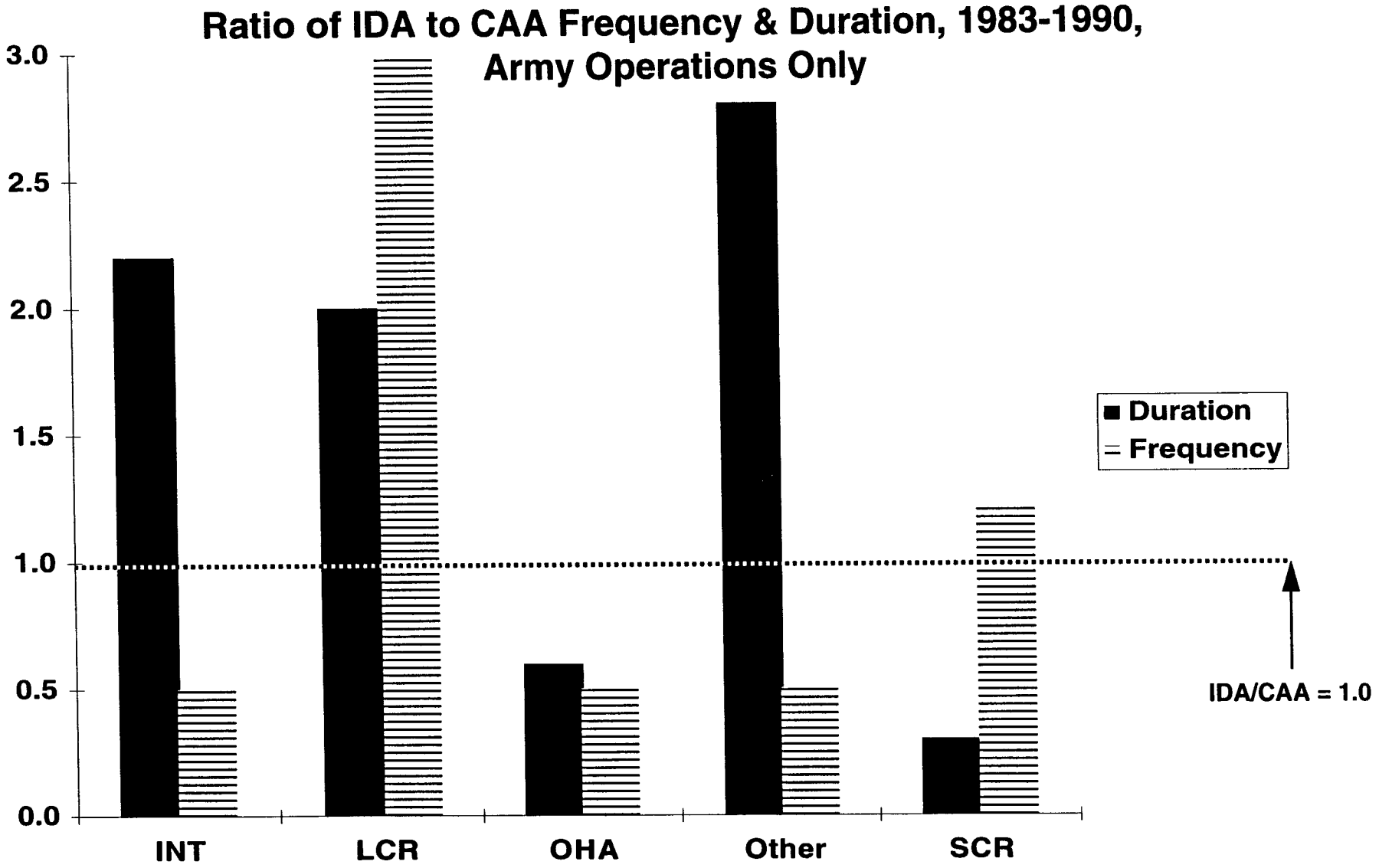


Note that in addition to the four mission areas missing from the previous slide, LPO has also dropped out

How much of this divergence is due to the fact that the IDA database is cross-Service whereas the CAA data cover the Army only? When all non-Army data is removed from the IDA database, the results converge somewhat, but large differences remain. Four of 14 comparisons now provide values within 30 percent of each other (vice only 2 for slide 11).[14] But again none provide the same value; 9 of the 14 still differ by at least a factor of two; and 3 still differ by a factor of five or more.

14 Note that only 7 of the 12 mission areas provide Army-only data in both datasets. In particular, the IDA database contains no examples of Army-only large peace operations; the CAA database contains no examples of maritime or migrant operations, noncombatant evacuation operations, no-fly-zone enforcement, and CONUS humanitarian assistance.

Controlling Also for Time Period



Note that in addition to the five mission areas missing from the previous slide, HIP and IP have also dropped out

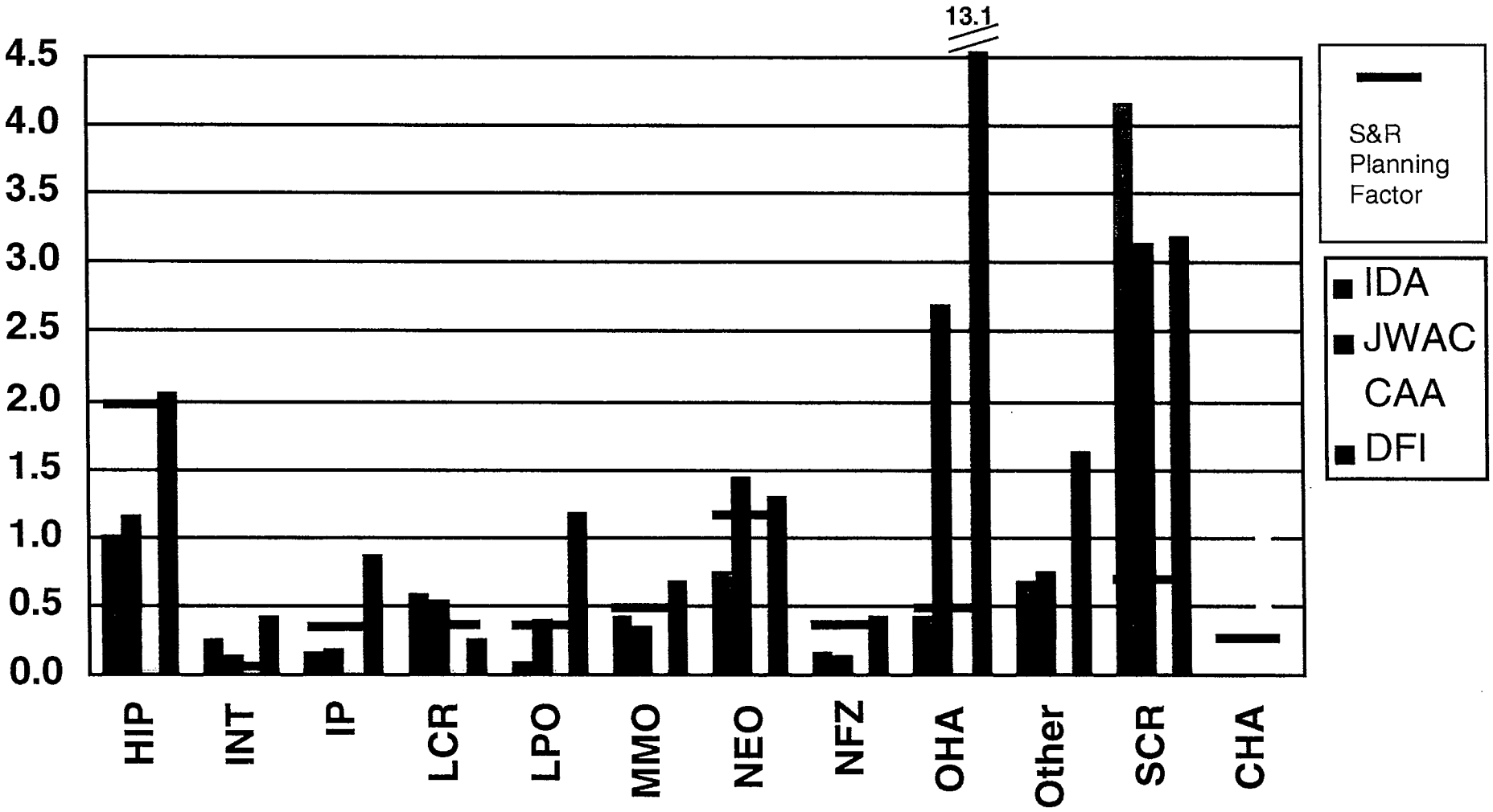
How much of the remaining divergence is due to the two databases' differing time periods? If restricted to the same Service over the same years, would they produce the same results? When only events involving exclusively Army personnel and occurring between 1983 and 1990 are considered, the restriction again reduces the range of disagreement somewhat, but again large differences remain. The number of extreme disagreements falls: none of the 10 comparisons differ by more than a factor of 3. On the other hand, the number of less-extreme but still important divergences actually grows as a proportion of the total: whereas 64 percent of the comparisons in slide 12 differed by a factor of two or more, 80 percent do here -- and again, none provide the same value. In addition, the amount of usable data has fallen substantially. Whereas the full IDA database, for example, contains records for 103 events covering all 12 mission areas, only 41 events remain after controlling for Service and time period vis a vis the CAA data, and only five of the 12 missions are represented.

Using the Non-Amalgamated Databases

- The decision not to amalgamate leaves databases with the large differences shown on slides 15-17
- How best to use them to develop recommendations?

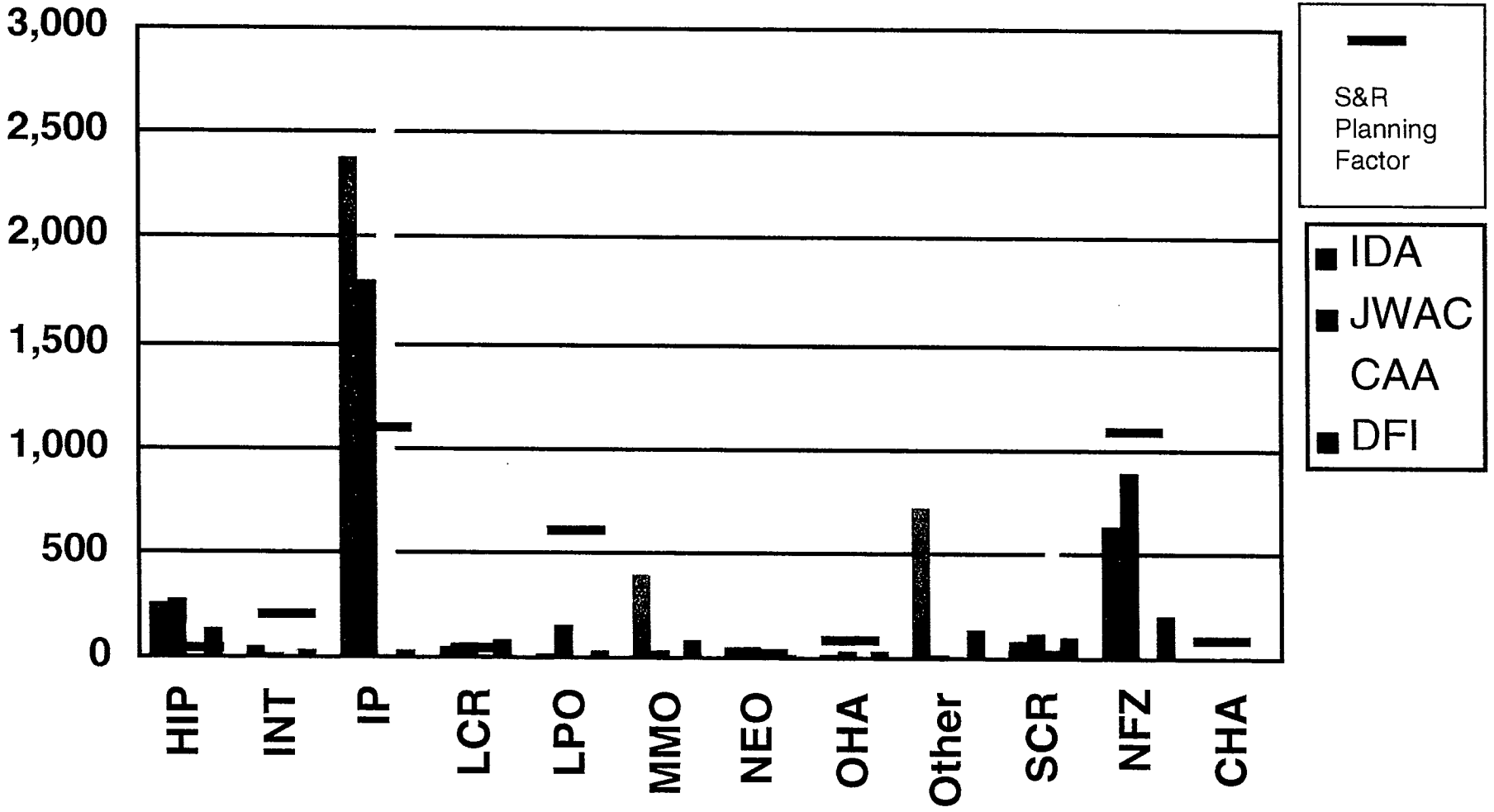
Given this, we opted not to amalgamate. Rather than a single, master dataset, we are thus left with the four separate databases whose widely diverging results are depicted in slides 15-17.

Average Frequency by Mission (per year)



This slide provides the average number of occurrences per year for each mission type by database. The OASD (S&R) planning factors for each mission are given as horizontal bars. The results suggest wide variance across databases. The highest and lowest values differ by more than a factor of two for all but one mission (maritime and migrant operations); for three missions (interpositional peacekeeping, large peace operations, and overseas humanitarian assistance), the highest and lowest values differ by more than a factor of ten. The planning factors are generally within the range of variance provided by the respective databases, although one (intervention) is slightly lower than the lowest of the four databases, and two (no-fly zones and small crisis response) are near the respective extrema.

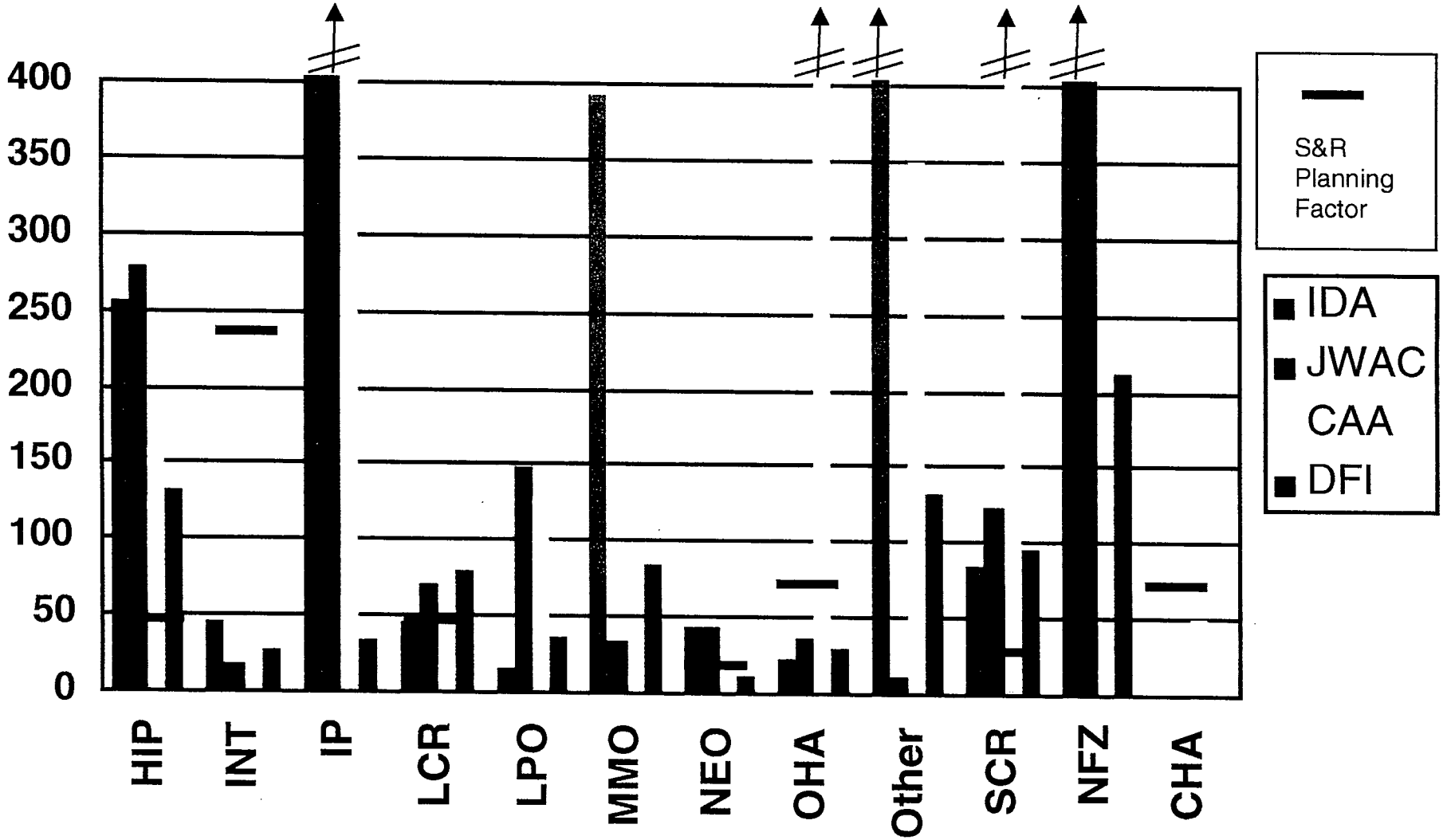
Average Duration by Mission (days)



This slide provides the average duration (in days) for each mission type by database. The OASD (S&R) planning factors for each mission are again given as horizontal bars. Again the results vary widely across databases. The highest and lowest values differ by more than a factor of two for all missions with data from more than one database; for four missions (interpositional peacekeeping, migrant and maritime operations, overseas humanitarian assistance, and other), the highest and lowest values differ by more than a factor of ten. The planning factors are less generally within the range of variance provided by the respective databases than was the case for frequency: four exceed the largest value from any database (intervention, large peace operations, no-fly zones and CONUS humanitarian assistance); two are lower than the lowest of the databases' values (humanitarian intervention peacekeeping and small crisis response).

Average Duration by Mission (days)

(rescaled to show detail of small values)



This slide expands the lower part of the scale from slide 16.

Developing Recommended Factors

- Three steps
  - Compute static average of IDA and JWAC data by mission for frequency and duration
  - Trend analysis to determine if use of static average is appropriate
  - Recommend factor
- Limitations
  - Database quality
  - Data often not well-behaved
    - Variance high, non-constant; distributions often non-normal
  - Narrow range of considerations addressed
    - Past experience not necessarily sufficient as guide to future action
    - Past experience may have been driven by factors no longer present
    - Future strategic preferences may differ from past choices
    - Issues of force sizing (and of op- and perstempo) are only partially addressed by duration, frequency

The remainder of the briefing will develop a series of recommendations for making best use of the imperfect data available. In particular, for each mission, we first compute a static average frequency and static average duration from the IDA and JWAC data. The IDA and JWAC databases are used because they are the only cross-Service datasets (DFI covers only Air Force activity; CAA covers only the Army). We then perform a trend analysis to determine whether the data are systematically increasing or decreasing from their means. Finally, we recommend which of the two should be used. In the interest of simplicity and transparency, our decision rule is to recommend the static average unless there is strong statistical evidence of a trend, in which case we extrapolate accordingly.[15]

There are a number of important limitations to the results. First, as noted above, the quality of the data is very uneven. While we were able to identify and correct some errors, many others surely remain. It is entirely possible that these might be serious enough to induce significant bias in the results -- and the likely direction or magnitude of this bias cannot be determined *ex ante*.

---

15 There is a potential problem in using the average as an estimator of the true frequency of the events under observation. *If* the constructors of the two individual databases were trying to observe the *identical* events (that is, if they were attempting to ascertain the exact count of events using *precisely the same* counting rules), their numbers should be the same if they made no errors. But, as the discussion above makes clear, there are in fact substantial differences between the databases. This could occur due to one of three reasons:

1) The event was reported in a data source but not coded due to human error (which might include misinterpretation of the counting rules)

2) No event was reported, but one was recorded anyway.

3) An event occurred, but was not reported, because it was included in a database not consulted in by the compilers of one of the databases but which was used by the compilers of the other.

If there are many errors of the last type, the average may seriously under count the actual number of events, and a better lower-bound would in fact be the highest count in either database.

We do not, however, have any reason to suspect that the differences between the IDA and JWAC databases are systematically due to type 3 errors. Indeed, many of the sources consulted by the databases' compilers are the same, leading to the suspicion that many of the differences resulting from causes other than simple human entry error result from differences in counting rules, which would correspond to a type 1 error.

In the slides that follow, there are three instances in which the recommended planning factor based on computing the average between the two databases is more than 20 percent different than taking the highest value in either database. For Non-combatant evacuation operations (NEO), the high value is 1.45 missions per year, and the average is 1.0; for Interventions (INT), the average is 0.2 and the largest value is 0.26; and, for Large Peace Operations (LPO), the average is 0.25 and the highest values is 0.4.

Second, even if correct, the data are often not well-behaved. Variance is often high, both within and across databases, and is frequently non-constant with respect to time. Distributions for both frequency and duration are often non-normal.

Finally, the available databases address only a subset of the range of considerations relevant to developing planning factors for force sizing and design. Past U.S. behavior, for example, is not necessarily a sufficient guide to future action. Our past experience may have been driven by factors no longer present (such as the Cold War or the Sandinista regime in Nicaragua), or by political or strategic preferences not held by the current Administration. Moreover, force sizing policy is only partially a function of the expected mean duration or frequency of future missions, much less past experience. Not all missions are equally important, and not all instances of any given mission are equally important. Planning factors based on mean historical mission frequency and duration are thus crude tools at best, even if based on solid historical data -- which the values recommended below are probably not.

Noncombatant Evacuation (NEO)

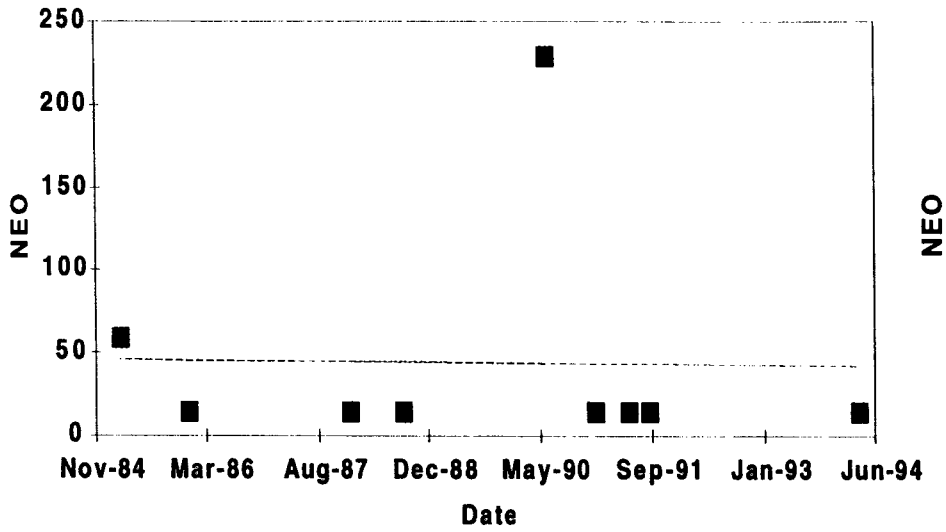
	Duration in days	Frequency per year
IDA	43.9 (71.4)	0.77 (0.97)
JWAC	43.4 (77.3)	1.45 (1.47)
Significance	0.99	0.15
IDA-JWAC Average	**43.7**	**1.11**

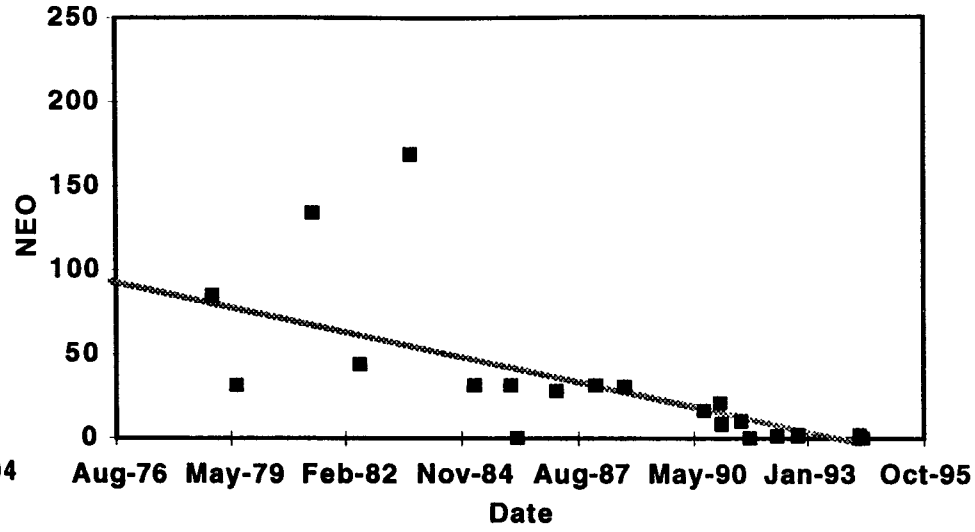
Significance for rejecting null hypothesis (that IDA and JWAC are the same) using Student's t ( ) = σ

We now develop recommendations for each mission in turn, beginning with noncombatant evacuation (NEO). Mean NEO duration was 43.9 days by the IDA database, with a standard deviation of 71.4, and 43.4 days by the JWAC database, with a standard deviation of 77.3. Although the standard deviations are quite large, the mean values are in close agreement (the null hypothesis of identical means can be rejected only at the .99 level). The static average of the two databases' values is 43.7 days.

Mean NEO frequency was 0.77 per year by the IDA database, with a standard deviation of 0.97, and 1.45 per year by the JWAC database, with a standard deviation of 1.47. Again the standard deviations are quite large, and in this case the means differ from one another by almost a factor of two. The null hypothesis of equal IDA and JWAC means can be rejected at the .15 level. The static average of the two databases' values is 1.11 NEOs per year.

NEO Duration Trend





IDA data

$r^2 = 0.0003$
b = - 0.001
F = 0.002
P value = 0.96
residuals: problematic

JWAC data

$r^2 = 0.22$
b = - 0.01
F = 6.98
P value = 0.014
residuals: problematic

This slide presents the trend analysis for NEO duration. Duration in days was regressed against time, or the date on which the operation began (measured as days since January 1, 1900), for both the IDA and JWAC databases.[16]

The IDA data show a very weak, statistically insignificant downward trend in duration for this mission. OLS regression suggests a reduction in average NEO duration of about four-tenths of a day per year (corresponding to a coefficient of -0.001 for the single independent variable, date, as expressed in days). The null hypothesis of no relationship, however, can only be rejected at the .96 level, and only about three-ten-thousandths of the variance is explained by the effects of time. In addition, the regression residuals are heteroskedastically distributed.

The JWAC data show a stronger downward trend. The regression results suggest a reduction in average NEO duration of about four days per year (corresponding to a coefficient of -0.01 for the single independent variable, date, as expressed in days). The null hypothesis of no relationship can be rejected at the .014 level, and somewhat more than one-fifth of the variance is explained by the effects of time. The regression residuals are again heteroskedastic, however, and the underlying relationship is clearly nonlinear (duration cannot realistically fall below zero, as the fitted linear trendline does).

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16 Potential users of our database are reminded (as the project team learned the hard way) that Microsoft Excel for Macintosh assumes a start date of January 1, 1904. Excel for Windows assumes January 1, 1900. Excel will not automatically compensate if data entered in one operating system is transferred to the other.

Recommended NEO Duration Planning Factor

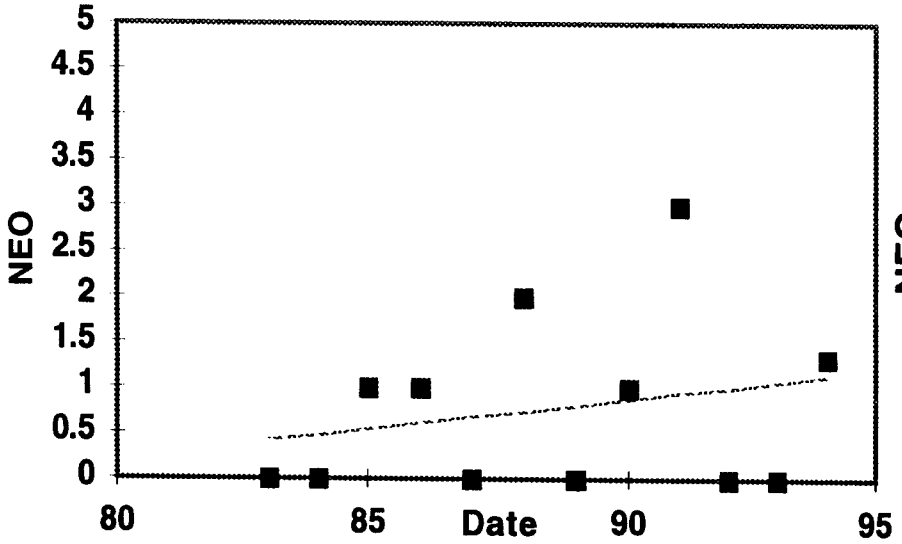
- Static averages consistent across databases, though variance large for both
- Mixed evidence for declining trend
  - JWAC data show moderate, significant negative slope; nonlinear relationship
  - IDA data show very shallow negative slope, not significant
- Trendline projection and static average differ widely:
  - Static = 43.7 days per operation
  - Trend projection for year 2005 = 2.25 days per operation
- In absence of stronger statistical case for trend, static average is least-bad bet: 44 days per operation

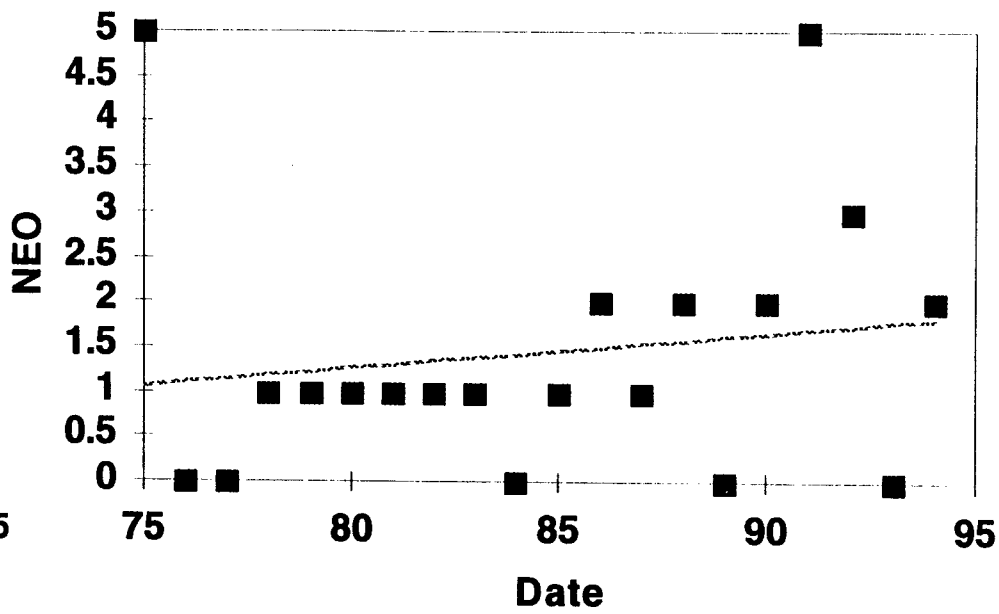
What, then, do we recommend as a planning factor for NEO duration? The static averages are highly consistent for the two databases (even though the standard deviations are high); this merits somewhat increased confidence in the average's validity. There is some, but mixed, evidence for a declining trend. The JWAC data show a moderate, significantly negative slope; the relationship, however, is clearly nonlinear. The IDA data, on the other hand, show only a very shallow negative slope that cannot be statistically distinguished from zero.

It is worth noting that the trendline projection and the static average differ widely. If we assume that the NEO duration trend in the JWAC data has bottomed out by the mid 1990s at a value equal to roughly the average of the last four data points available, this would imply a projection for the year 2005 of roughly 2.25 days per operation. By contrast, the static average of 43.7 days is about twenty times this value.

The statistical picture is thus cloudy at best. Per our decision rule, however, in the absence of a clear case for a downward trend, we recommend the static average of about 44 days as the least-bad bet.

NEO Frequency Trend





IDA data

$r^2 = 0.06$
b = 0.07
F = 0.61
P value = 0.45
residuals: problematic

JWAC data

$r^2 = 0.03$
b = 0.04
F = 0.48
P value = 0.50
residuals: problematic

This slide presents the trend analysis for NEO frequency. Operations were grouped by year; the number of operations in each year was then regressed against time (in years), for both the IDA and JWAC databases.

The IDA data show a statistically insignificant upward trend in frequency for this mission. OLS regression suggests an increase in average NEO frequency of about seven one-hundredths of a mission per year. The null hypothesis of no relationship, however, cannot be rejected at any level better than .45, and only about six percent of the variance is explained by the effects of time. In addition, the regression residuals are heteroskedastically distributed.

The JWAC data provide similar findings. The regression results suggest an increase in average NEO frequency of about four one-hundredths of a mission per year. The null hypothesis of no relationship cannot be rejected at any level better than .5, however, and only three percent of the variance is explained by the effects of time. The regression residuals are both heteroskedastic and serially correlated.

Recommended NEO Frequency Planning Factor

- Static averages inconsistent across databases; variance large for both
- Increasing trend, but statistically insignificant; problematic regression residuals
- Trendline projection and static average differ widely:
  - Static = 1.11 operations per year
  - Trend projection for year 2005 = 2.3 operations per year
- In absence of stronger statistical case for trend, static average is least-bad bet: 1 operation per year

What, then, do we recommend as a planning factor for NEO frequency? The static averages are inconsistent for the two databases, with high standard deviations in both cases. Both databases show an increasing trend, but the results are statistically insignificant, and the regression results display problematic residual distributions.

While neither result has strong statistical support, the difference in implied planning factors is large. If we split the difference between the IDA and JWAC databases' apparent rate of increase in NEO frequency and project the results to 2005, we obtain a projection of about 2.3 NEOs per year,[17] or more than twice the static average of 1.11.

The statistical picture is thus again cloudy. Per our decision rule, however, in the absence of a clear case for a downward trend, we recommend the static average of about one operation a year as the least-bad bet.

---

17 Computed by extrapolating both data sets to the year 2005 and then computing a pooled average rate of increase from the average values of the last three recorded years.

Small Crisis Response (SCR)

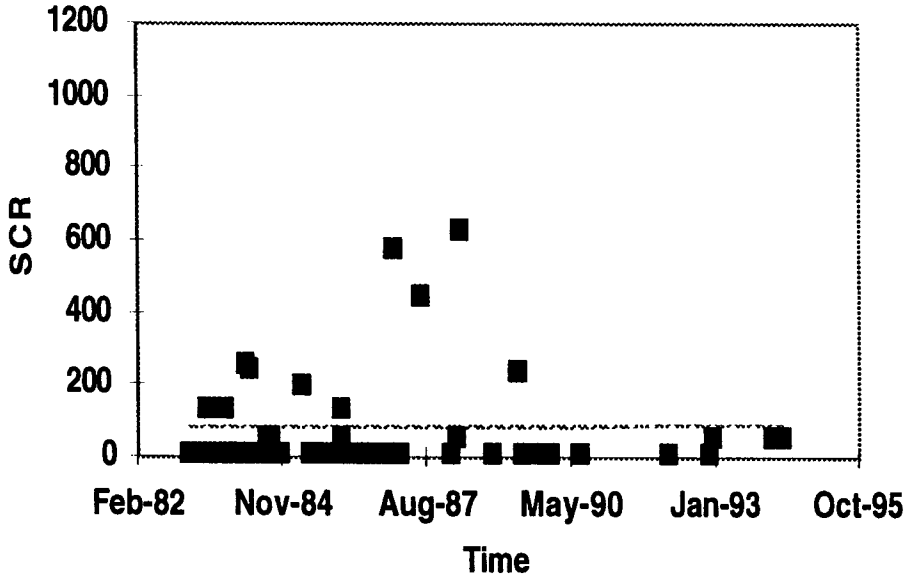
	Duration in days	Frequency per year
IDA	85.2 (141.9)	4.17 (3.12)
JWAC	123.6 (231.9)	3.15 (2.37)
Significance	0.32	0.35
IDA-JWAC Average	**104.4**	**3.66**

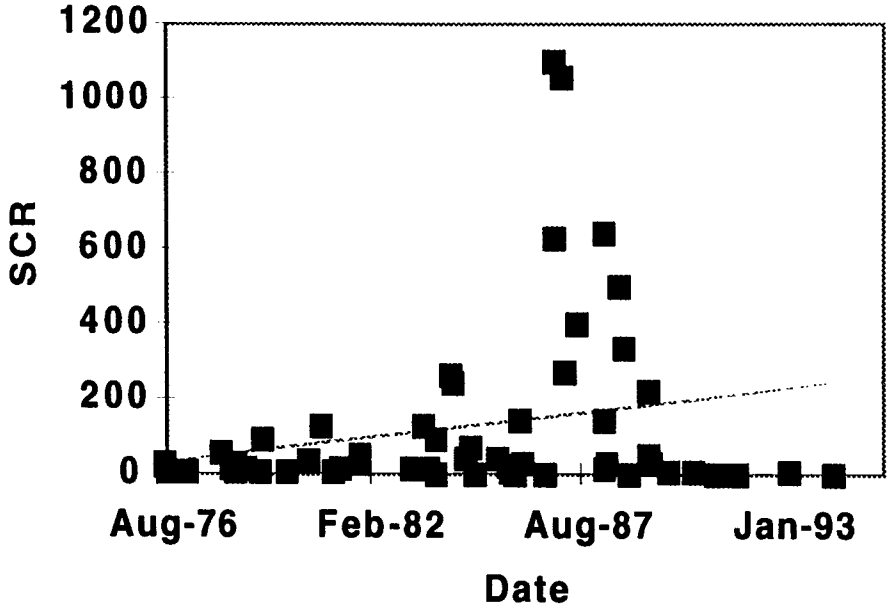
Significance for rejecting null hypothesis (that IDA and JWAC are the same) using Student's t ( ) = σ

We now turn to Small Crisis Response (SCR). Mean SCR duration was 85.2 days by the IDA database, with a standard deviation of 141.9, and 123.6 days by the JWAC database, with a standard deviation of 231.9. This combination of wide divergence and high standard deviations makes it impossible to reject the null hypothesis of identical IDA and JWAC means at any level better than .32. The static average of the two databases' values is 104.4 days.

Mean SCR frequency was 4.17 per year by the IDA database, with a standard deviation of 3.12, and 3.15 per year by the JWAC database, with a standard deviation of 2.37. Again the standard deviations are quite large. The null hypothesis of identical IDA and JWAC means thus can be rejected at any level better than 0.35. The static average of the two databases' values is 3.66 SCRs per year.

SCR Duration Trend





IDA data

$r^2 = 0.0002$
b = 0.002
F = 0.009
P value = 0.92
residuals: problematic

JWAC data

$r^2 = 0.05$
$\beta = 0.03$
F = 3.27
P value = 0.08
residuals: problematic

This slide presents the trend analysis for SCR duration. Duration in days was regressed against time, or the date on which the operation began (again, measured as days since January 1, 1900), for both the IDA and JWAC databases.

The IDA data show no meaningful change in SCR duration over time. The OLS regression coefficient is very small, and the null hypothesis that this value is different from zero can be rejected at the .08 level. Almost none of the variance is explained by the effects of time, and the regression residuals are heteroskedastic.

The JWAC data, by contrast, show some evidence of an upward trend. The regression results suggest an increase in average SCR duration of about eleven days per year (corresponding to a coefficient of 0.03 for the single independent variable, date, as expressed in days). The null hypothesis of no relationship can be rejected at the .08 level. On the other hand, only about five percent of the variance is explained by the effects of time. Moreover, the regression residuals are again heteroskedastic, and are also serially correlated. The scatter plot suggests that some of these anomalies may be a result of four strongly divergent patterns in the data: a moderate increase (1976-1985), a steep increase (1985-1987), a steep decrease (1987-1990), and a period of little change (1990-1994).

Recommended SCR Duration Planning Factor

- Static averages' consistency unclear; large variance
- Mixed evidence of increasing trend
  - IDA data show slightly positive slope, but non-significant
  - JWAC full-term data show steeper, significant, increasing slope, but goodness of fit (predictive power) of OLS model is weak
  - JWAC recent data (85-94) show sharply divergent patterns
    - Steep increase (85-87); steep decrease (87-90); little change (90-94)
  - IDA-JWAC data for comparable, recent, period (90-94) show different means (IDA: 37.5 days, JWAC: 4.4 days)
- Trendline projections and static average differ widely:
  - Static = 104.4 days per operation
  - JWAC 2005 projection =400; IDA 2005 projection =100; extrapolation from post =1990 IDA, JWAC data =20
- Given mixed, inconsistent trend evidence, static average is least-bad bet:104 days per operation

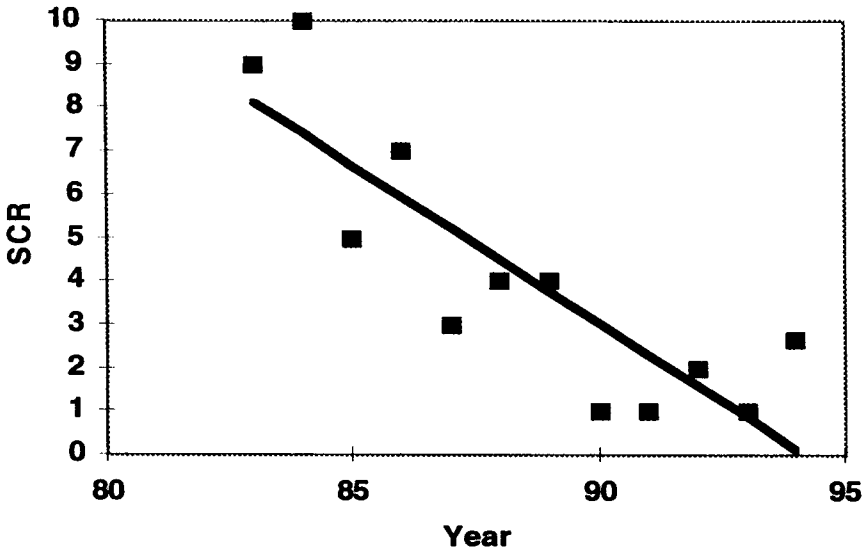
What, then, do we recommend as a planning factor for SCR duration? The static averages' consistency is unclear: they are neither so different as to enable us to reject the null hypothesis that they are the same, nor so similar as to allow us to reject a null hypothesis that they are different. The standard deviations are very large for both databases.

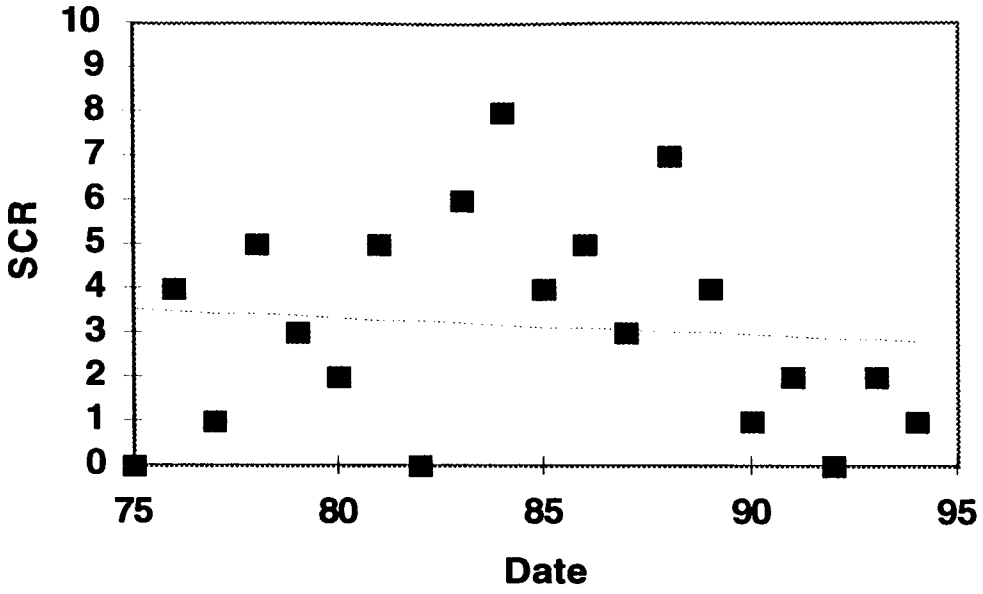
The trend analysis shows very mixed results. The IDA data show no statistically meaningful trend. The JWAC data show a statistically significant increase in duration over time, but the resulting goodness of fit is very poor. This is due in part to the sharply divergent patterns in the JWAC data. If these patterns displayed reasonable stability they might offer some prospect for trend projection, but their variable and often short duration (9, 2, 3, and 4 years, respectively), combined with their sharp differences in implied slopes suggest mostly that any long term trend projection would be a very uncertain business. The JWAC results are thus both problematic in themselves, and very different from the IDA data. Even for a comparable, recent period in which both databases show a similar slope (1990-1994), for example, the means of the respective data are radically different: 37.5 days for the IDA data, and 4.4 for JWAC, a difference of nearly a factor of ten.

Once again, the trend projections and the static average imply very different planning factors. While a projection based on the IDA data would show little divergence from the static average of 104.4, either of two possible projections from the JWAC data show radically different results. If we use the JWAC data as a whole, a projection to 2005 would imply an average SCR duration of about 400 days; if we instead extrapolate from an average of the post-1990 IDA and JWAC data (as was done for the NEO data above) we obtain a 2005 projection of about 20 days' average SCR duration. These differ from one another by a factor of 20; they differ from the static average by a factor of four to five.

Again, the statistical picture is thus cloudy at best. Per our decision rule, however, in the absence of a clear case for a trend, we recommend the static average of about 104 days per operation as the least-bad bet.

SCR Frequency Trend





IDA data

$r^2 = 0.72$
$b = -0.73$
$F = 25.9$
P value = 0.0005
residuals: acceptable
(somewhat non-random)

JWAC data

$r^2 = 0.009$
$\beta = -0.04$
$F = 0.17$
P value = 0.69
residuals: problematic

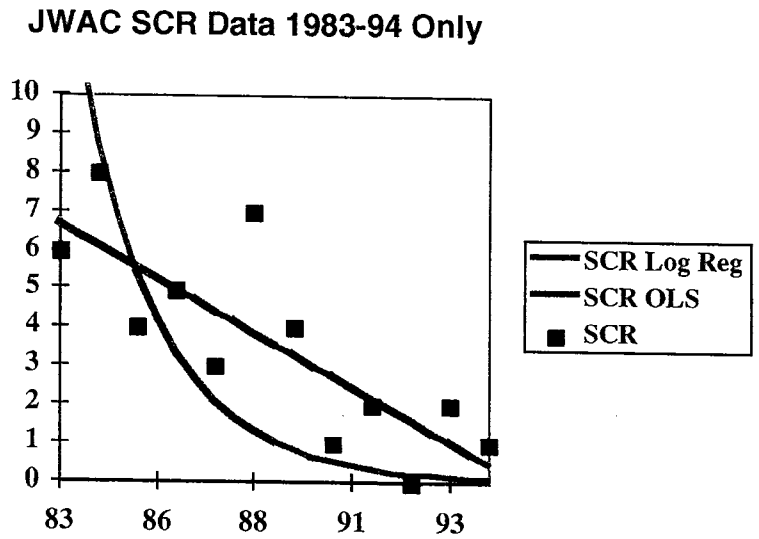
This slide presents the trend analysis for SCR frequency. Operations were grouped by year; the number of operations in each year was then regressed against time (in years), for both the IDA and JWAC databases.

The IDA data show a strong, statistically significant downward trend in frequency for this mission. OLS regression suggests a decrease in average SCR frequency of about seven tenths of a mission per year. The null hypothesis of no relationship can be rejected at the .0005 level, and more than 70 percent of the variance is explained by the effects of time. In addition, the regression residuals are homoskedastically (though somewhat nonrandomly) distributed. The nonrandomness of the residual distribution is consistent with the inherent nonlinearity of any negatively sloped relationship in these data: since frequency cannot be negative, an acceptable statistical model must be asymptotic with respect to time.

The JWAC data also imply a downward trend, but the relationship for the period as a whole is much weaker and statistically insignificant. The regression results suggest an overall decrease in average SCR frequency of about four one-hundredths of a mission per year (vice the IDA data's decrease of seven-tenths per year). The null hypothesis of no relationship cannot be rejected at any level better than .69, however, and less than one percent of the variance is explained by the effects of time. The regression residuals are both heteroskedastic and serially correlated. The scatter plot suggests that some of these anomalies may be a result of two contrasting patterns in the data: an increasing trend from 1975 to 1982, and a decreasing trend from 1984 to 1994. If the dataset is split into these two intervals, the results show significant, countervailing results. For 1975 to 1984, the time coefficient is positive (at a value of 0.62) and statistically significant (at the 0.1 level); for the 1984 to 1994 period, the coefficient is negative (-1.02) and statistically significant at the .004 level. For the first period, 30 percent of the variance is explained by the effects of time; for the second period, time explains 61 percent. Note that the second time interval corresponds to the IDA database's chronological coverage -- and that the IDA and JWAC results for this interval are quite similar.

Recommended SCR Frequency Planning Factors

- Static averages' consistency unclear; large variance
- Trend of decreasing frequency since 1983 in both databases
  - IDA data show steep, significant, decline
  - Though JWAC *long-term* data show no significant trend, 1983-94 data match IDA
  - Average of non-linear regressions suggests 2005 planning factor - 2



- Trendline projection and static average differ by factor of nearly two:
  - Static = 3.66 operations per year
  - Non-linear trend projection for 1997-2005 - 2 operations per year
- Absent assumption that recent decline and leveling off has reversed, trend projection is least-bad bet: 2 operations per year

What, then, do we recommend as a planning factor for SCR frequency? The static averages' consistency is unclear: they are neither so different as to enable us to reject the null hypothesis that they are the same, nor so similar as to allow us to reject a null hypothesis that they are different. The standard deviations are very large for both databases.

Both databases show a decreasing trend. The IDA data show a steep, statistically significant decline in frequency. The JWAC data overall show a decline, though a statistically insignificant one. Split into two periods, however, the JWAC data show significant, countervailing trends: an increase in frequency prior to 1984, and a decrease after that. The magnitude of the decrease, moreover, mirrors that of the IDA data. Since the trend is negative and relatively steep, however, simple linear regression is unsuitable (as it would predict negative frequency after the mid-1990s). Logarithmic transformations yield strong regression statistics, and provide a functional form with suitable behavior in the out-years.[18] An average of the results from OLS regression on logarithmically transformed variables for the IDA and JWAC datasets implies a frequency projection of about 2 SCRs a year for 2005.[19]

Once again the difference between the static average and the trend projection is large. The trend projection of 2 operations per year by 2005 is only 55 percent of the static average of 3.66.

In this case, however, the trend projection enjoys significantly stronger statistical support than did the projections for the planning factors described above. The strength of this support rests to an important degree on the partitioning of the JWAC data -- and thus the implicit assumption that the post-1983 decline in SCR frequency is neither an anomaly nor merely the downward leg of a cyclic phenomenon that will soon turn back up. But absent evidence to suggest that this trend is not continuing, by our standard decision rule the trend projection of 2 operations per year is here the least-bad bet.

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18 For the JWAC data, OLS using logarithmically transformed variables for the period produces a time coefficient of -49.8, no x intercept and a p value of .002, and an R2 of .64. For untransformed OLS, predicted SCR frequency goes negative after 1994.

19 We examined a variety of nonlinear functional forms for improved fit over the OLS model. No model, including OLS, behaved well extrapolating to periods before or after the datasets (predicted frequency either went below zero or grew without bound. Parametrically, the log transformation model best fit the data (for the JWAC data, predicted Y intercept was 226.7, predicted coefficient of log transformed SCR was -49.8, with an r square of .64 and significance of .002). For JWAC and IDA data separately and averaged together, the log model trend line 1991-2005 was nearly flat. The trend reported above was therefore computed using the average of data 1990-94.

Humanitarian Intervention Peacekeeping (HIP)

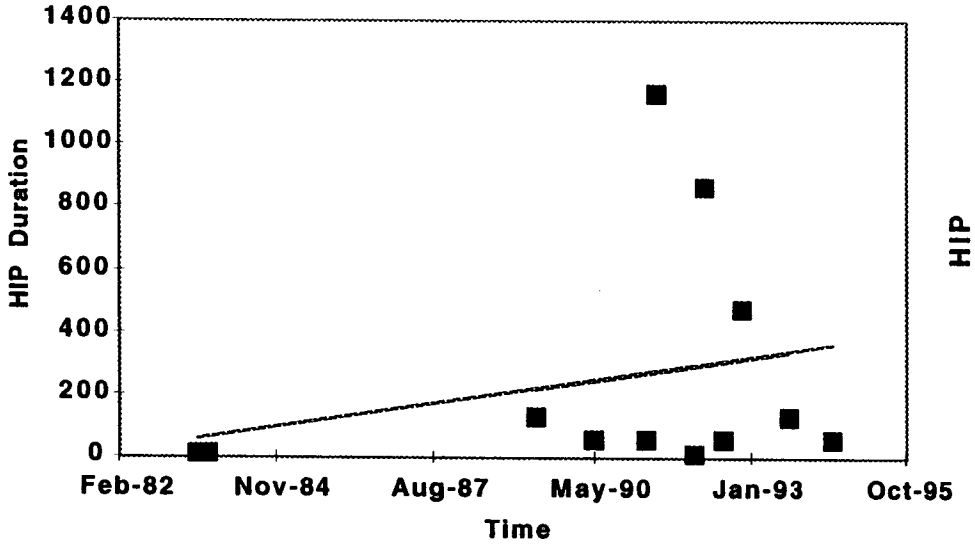
	Duration in days	Frequency per year
IDA	256.3 (383.7)	1.02 (1.20)
JWAC	279.7 (419.1)	1.15 (2.18)
Significance	0.87	0.83
IDA-JWAC Average	**268.0**	**1.09**

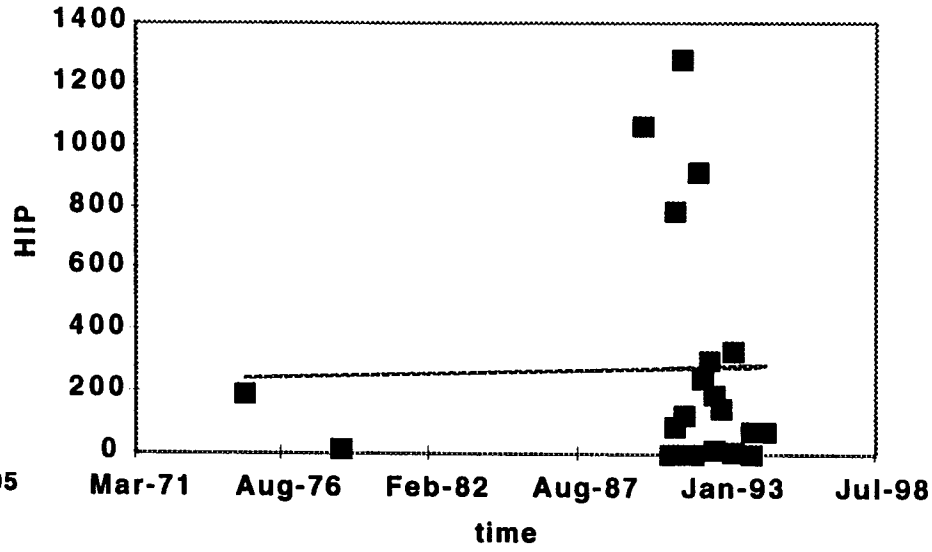
Significance for rejecting null hypothesis (that IDA and JWAC are the same) using Student's t () = σ

We now turn to Humanitarian Intervention Peacekeeping (HIP). Mean HIP duration was 256.3 days by the IDA database, with a standard deviation of 383.7, and 279.7 days by the JWAC database, with a standard deviation of 419.1. Although the standard deviations are large, the close proximity of the mean values allows us to reject the null hypothesis of identical IDA and JWAC means only at the .87 level. The static average of the two databases' values is 268 days.

Mean HIP frequency was 1.02 per year by the IDA database, with a standard deviation of 1.2, and 1.15 per year by the JWAC database, with a standard deviation of 2.18. Again the standard deviations are quite large, but again the means are close enough to allow a reasonable likelihood that the two sample means were drawn from the same population -- in this case, the null hypothesis of identical IDA and JWAC means can be rejected only at the .83 level. The static average of the two databases' values is 1.09 HIPs per year.

HIP Duration Trend





IDA data

$r^2 = 0.06$
$\beta = 0.07$
F = 0.69
P value = 0.42
residuals: problematic

JWAC data

$r^2 = 0.0008$
$\beta = 0.006$
F = 0.01
P value = 0.91
residuals: problematic

This slide presents the trend analysis for HIP duration. Duration in days was regressed against time, or the date on which the operation began (measured as days since January 1, 1990), for both the IDA and JWAC databases.

The IDA data overall show a statistically insignificant increase in HIP duration over time. The OLS regression coefficient is fairly high (corresponding to a 26 day increase per year), but the null hypothesis that this value is different from zero cannot be rejected at any level better than .42. Only six percent of the variance is explained by the effects of time, and the regression residuals are heteroskedastic.

After 1988, however, these results reverse direction: the OLS regression coefficient (-0.03) indicates a shallow, statistically insignificant *decrease* of about 11 days per year (the null hypothesis of no relationship cannot be rejected at any level better than .91). Here, too, only about 0.1 percent of the variance is explained by the effects of time, and again the regression residuals are heteroskedastic.

The JWAC data overall show no meaningful trend. The OLS regression coefficient is very small, and the null hypothesis that this value is different from zero can be rejected at the .09 level. Almost none of the variance is explained by the effects of time, and the regression residuals are heteroskedastic.

Once again, however, the results for the period after 1988 are quite different. For 1988-1994, the JWAC data show a steep, statistically significant decline of about 157 days per year (the regression coefficient is -0.43, with a p value of .04). 22 percent of the variance in this interval is explained by the effects of time. As with other results showing negative slopes, this implies a nonlinear relationship (because duration cannot be negative, as this functional form in fact predicts for operations begun after June 1994); standard nonlinear functional forms, however, provide inferior fits to the linear model described above.[20]

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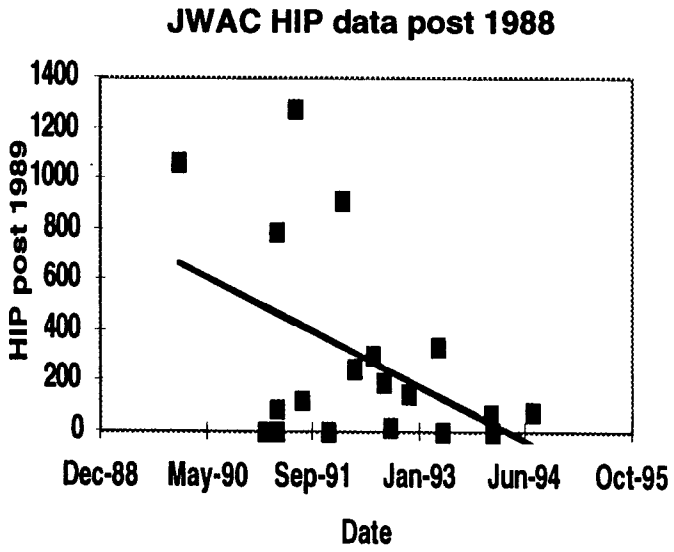
20 Logarithmically transformed variables, for example, provided OLS results of a regression coefficient of -0.0003, r^2 of 0.02, p=.58.

Recommended HIP Duration Planning Factor

- Static averages roughly consistent; variance large
- Mixed evidence for trends
  - Neither database shows meaningful long-term trend, though each give some indication of (non-significant) net increase since early 80s
- Both databases show declining short-term trend after 1988
  - IDA data: shallow, nonsignificant decline
  - JWAC data: steeper, significant decline
  - JWAC residuals suggest nonlinear relationship, but fit from standard nonlinear models is inferior to linear model shown



- Trend projections and static average diverge widely
  - IDA long-term 2005: 650 days; JWAC short-term 2005: 50 days; static average: 268 days
- Since trend data are mixed, static average is least-bad bet: 270 days per operation

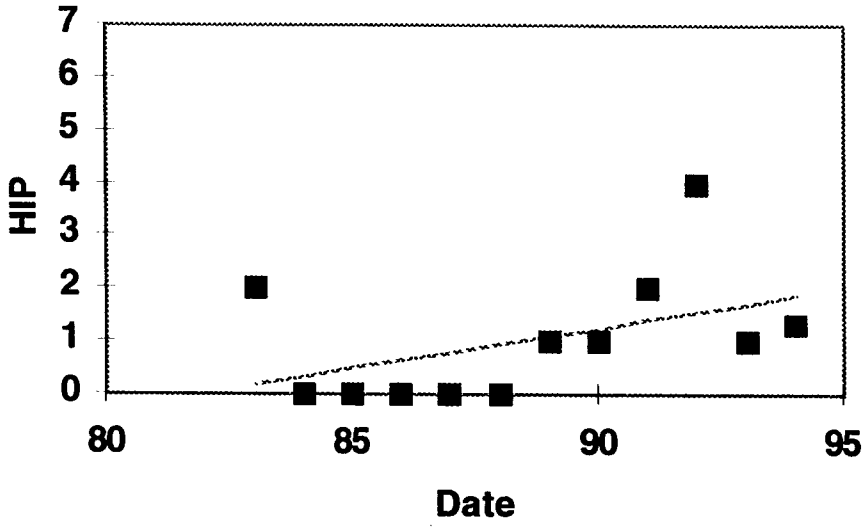
What, then, do we recommend as a planning factor for HIP duration? The static averages are reasonably consistent in spite of large standard deviations.

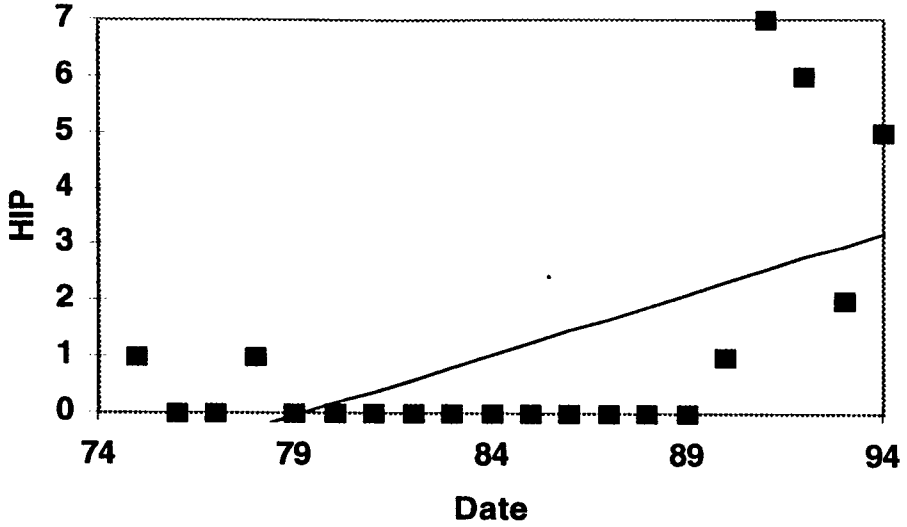
The trend analysis shows mixed results. Neither database shows any strong trend for the period overall: the JWAC data overall show no statistically meaningful relationship at all; the IDA data shows a statistically insignificant increase in duration. Each database, however, gives some indication of a decline in duration since 1988. For the IDA data, this decline is shallow and statistically insignificant. For the JWAC data, this decline is steeper and significant at the 0.04 level. While the implied relationship is necessarily nonlinear, no standard nonlinear model provides a superior fit to the data.

Once again the trend projection and the static average diverge widely. In addition, the trend projections implied by the respective databases are also very different. The IDA post 1988 results imply a 2005 projection of 650 days HIP duration; the JWAC post-1988 results, by contrast, imply a 2005 projection of only 50 days, or less than one-tenth the IDA value. The static average of 268 days falls near the midpoint of the two projections, and differs from each by more than a factor of two.

Again, the statistical picture is thus cloudy at best. Since the trend data are not unambiguous, however, per our decision rule we thus recommend the static average of about 270 days per operation as the least-bad bet.

HIP Frequency Trend





IDA data

$r^2 = 0.21$
$\beta = 0.15$
F = 2.61
P value = 0.137
residuals: serial correlation

JWAC data

$r^2 = 0.35$
$\beta = 0.22$
F = 9.55
P value = 0.006
residuals: serial correlation

This slide presents the trend analysis for HIP frequency. Operations were grouped by year; the number of operations in each year was then regressed against time (in years), for both the IDA and JWAC databases.

The IDA data show a fairly significant upward trend in frequency for this mission. OLS regression suggests an increase in average HIP frequency by .15 operations per year. The null hypothesis of no relationship can be rejected at the .137 level, and more than 20 percent of the variance is explained by the effects of time. The regression residuals are homoskedastic though serially correlated, and suggestive of a nonlinear relationship.

The JWAC imply a very similar upward trend. The regression results suggest an increase in average HIP frequency of 0.22 operations per year (vice the IDA data's decrease of 0.15). The null hypothesis of no relationship can be rejected at better than the .01 level, and 35 percent of the variance is explained by the effects of time. Again the regression residuals are homoskedastic though serially correlated, and suggestive of a nonlinear relationship.

Although both datasets are suggestive of a nonlinear relationship with an increasing slope over time, such an unbounded growth pattern would produce unreasonably high frequencies within the time span of interest to the study. Presumably, frequency would level off at some point in the not-too-distant future, but we have no basis for estimating such a turning point. In the absence of this, a simple linear projection is probably a better bet. Even this may tend to overestimate likely frequencies in the out-years, but to a smaller degree than a nonlinear model that would otherwise offer a better fit to the data.

Recommended HIP Frequency Planning Factors

- Static averages roughly consistent across databases; large
- Trend increasing, reasonably significant in both (though significance borderline for IDA data, and slopes differ)
  - IDA database projection suggests 3.5 operations per year by 2005; JWAC suggests 5.6
  - Taken together, implies annual rate of increase will be about 5%, and that they will occur on average 3.8 times per year over the period 1997-2005
- Static average and trend projection diverge widely
  - Static average: 1 per year
  - Projection: 3.8 per year
- Absent a reason to doubt validity of extrapolated trend, bad planning factor would be:4 operations per year

What, then, do we recommend as a planning factor for HIP frequency? Although the standard deviations are large, the static averages are nevertheless roughly consistent.

Both databases show a statistically significant upward trend, although the slopes differ somewhat and the significance of the IDA relationship is somewhat borderline. The IDA results imply a 2005 projection of 3.5 HIPs per year; the JWAC results imply a projection of 5.6. Taken together, these findings suggest an annual rate of increase of around five percent, and an average frequency of about 3.8 operations per year between now and 2005.

The trend projection and the static average are again very different. The projection of 3.8 HIPs per year is almost four times greater than the static average of 1.

In this case, however, the trend projection enjoys stronger statistical support. Both databases show a significant increasing trend, and the respective slopes are not radically different from one another. While a linear extrapolation implies unbounded increase in frequency -- which must surely level off eventually -- we have no information to suggest when this turning point might be reached. Absent such information, and absent any other reason to doubt the near-term linear extrapolation, the least-bad bet is thus the projected frequency of 4 operations per year.

CONUS Humanitarian Assistance (CHA)

	Duration in days	Frequency per year
IDA		
JWAC	No instances in either database	
Significance		
IDA-JWAC Average		

Significance for rejecting null hypothesis (that IDA and JWAC are the same) using Student's ( ) = σ

There were no instances of CONUS Humanitarian Assistance (CHA) in either the IDA or the JWAC database.

OCONUS Humanitarian Assistance (OHA)

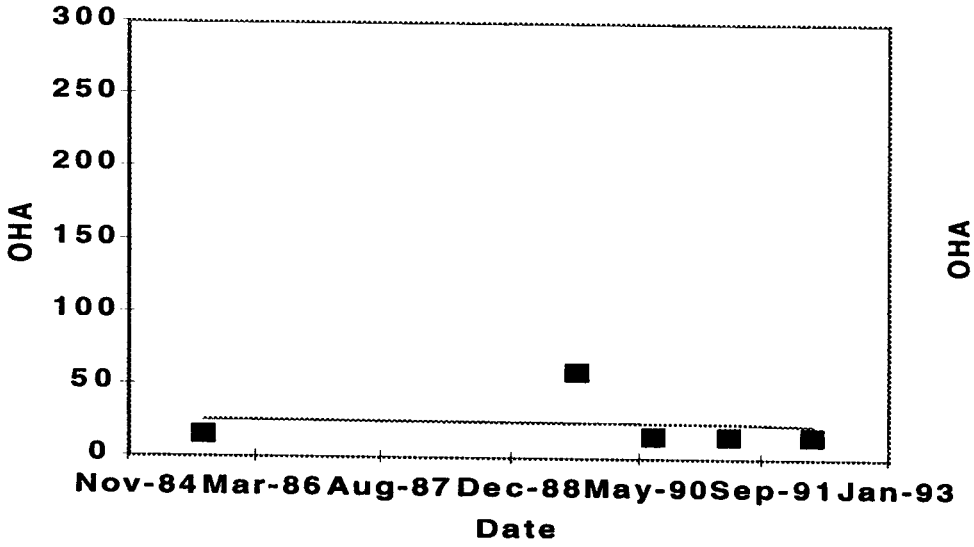
	Duration in days	Frequency per year
IDA	24 (20.1)	0.43 (0.52)
JWAC	36.4 (71.9)	2.7 (5.48)
Significance	0.71	0.16
IDA-JWAC Average	**30.2**	**1.57**

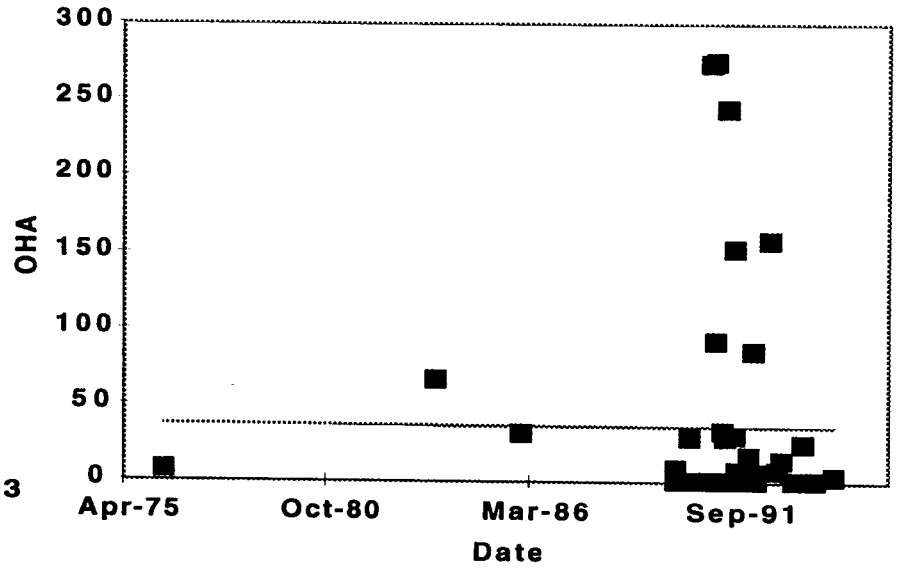
Significance for rejecting null hypothesis (that IDA and JWAC are the same) using Student's t
( ) = σ

We now turn to Outside CONUS Humanitarian Assistance (OHA). Mean OHA duration was 24 days by the IDA database, with a standard deviation of 20.1, and 36.4 days by the JWAC database, with a standard deviation of 71.9. The null hypothesis of identical IDA and JWAC means cannot be rejected at any level better than .71. The static average of the two databases' values is 30.2 days.

Mean OHA frequency was 0.43 per year by the IDA database, with a standard deviation of 0.52, and 2.7 per year by the JWAC database, with a standard deviation of 5.48. This difference is unlikely to be due to chance alone: the null hypothesis of equal means can be rejected at the .16 level of significance. The static average of the two databases' values is 1.57 OHAs per year.

OHA Duration Trend





IDA data

$r^2 = 0.002$
$\beta = -0.001$
F = 0.007
P value = 0.94
residuals: problematic

JWAC data

$r^2 \approx 0$
$\beta = -0.0001$
F = 0.0002
P value = 0.99
residuals: problematic

This slide presents the trend analysis for OHA duration. Duration in days was regressed against time, or the date on which the operation began (measured as days since January 1, 1900), for both the IDA and JWAC databases.

Neither the IDA nor the JWAC data show any meaningful change in OHA duration over time. The OLS regression coefficients are very small, and the null hypothesis that their values are different from zero can be rejected at the .06 and .01 levels, respectively. Almost none of the variance is explained by the effects of time, and the regression residuals are heteroskedastic in both cases.

The JWAC data does show something of a pattern in the form of a spike in duration around 1991, but this is both brief and unrepresentative of the other data.

Recommended OHA Duration Planning Factor

- Static averages' consistency unclear; large variance
- No reliable trend in data
  - Long-term trendlines essentially flat for both databases
  - Short-term JWAC data for 1991-94 does show
    - Two-order-of-magnitude increase and then decrease in maximum duration of missions, and a 275-day spread in duration from longest to shortest mission
    - Moderately significant net downward trend over 1991-94
    - May be artifact of coding inconsistency between databases
    - Variability, short time period, make mid/long term projection risky
- No meaningful disagreement between static averages and trendline analysis
- Static average is therefore least-bad bet:30 days per operation

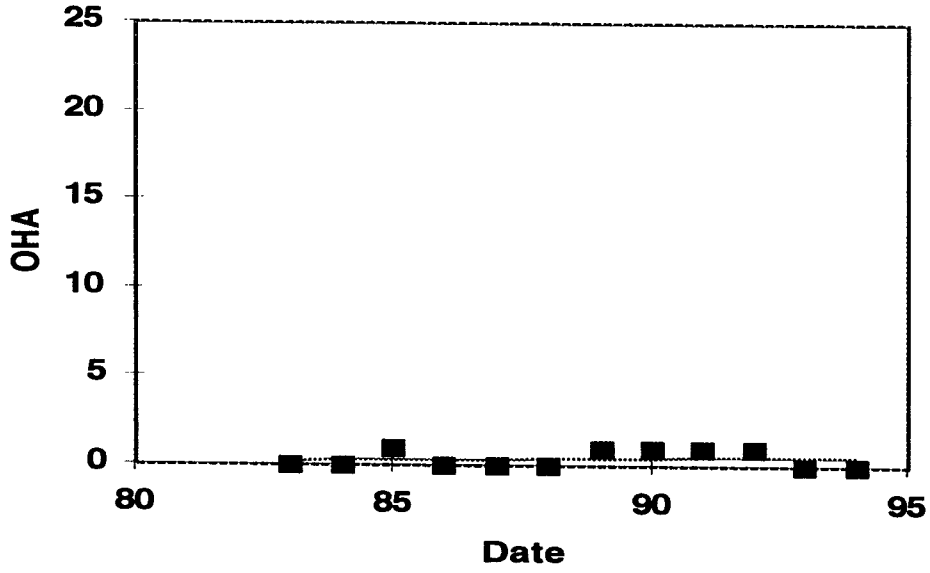
What, then, do we recommend as a planning factor for HIP duration? The static averages' consistency is unclear: they are neither so different as to enable us to reject the null hypothesis that they are the same, nor so similar as to allow us to reject a null hypothesis that they are different. The standard deviations are very large for both databases.

Neither database shows any meaningful trend. The spike in the JWAC data adds considerable instability to what would otherwise be a finding of a near-constant value, but provides little in the way of a projectable trend.

Somewhat atypically, the trend projection and the static average are in rough agreement.

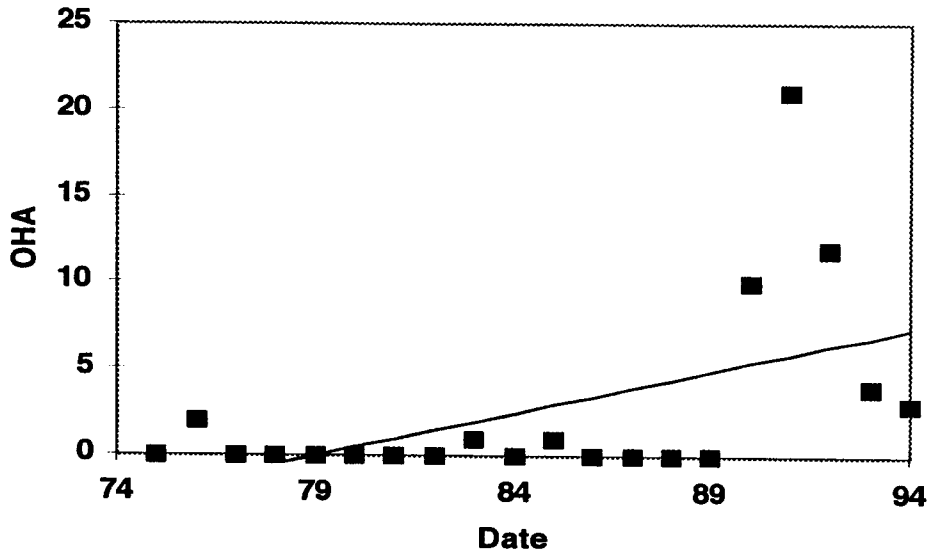
Per our decision rule, we thus recommend the static average of 30 days per operation as the least-bad bet.

OHA Frequency Trend



IDA data

$r^2 = 0.05$
$\beta = 0.03$
F = 0.51
P value = 0.49
residuals: problematic



JWAC data

$r^2 = 0.28$
$\beta = 0.49$
F = 7.01
P value = 0.02
residuals: problematic

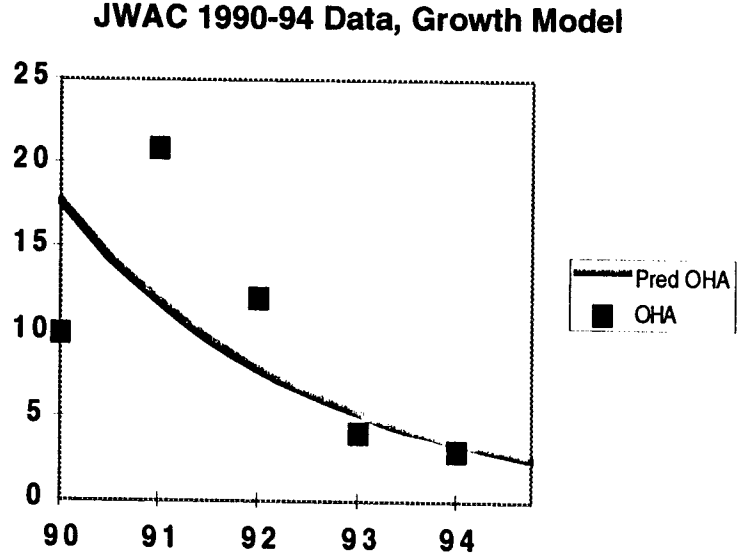
This slide presents the trend analysis for OHA frequency. Operations were grouped by year; the number of operations in each year was then regressed against time (in years), for both the IDA and JWAC databases.

The IDA data show no meaningful change in OHA frequency over time. The OLS regression coefficient is small, and the null hypothesis that this value is different from zero cannot be rejected at any level better than .49. Only five percent of the variance is explained by the effects of time, and the regression residuals are serially correlated.

The JWAC data, by contrast, show a statistically significant upward trend overall. On average, frequency increases by about a half a mission every year; the null hypothesis of no increase can be rejected at the .02 level. A little under 30 percent of the variance is explained by the effects of time. The residuals, however, are strongly heteroskedastic. Moreover, the data are suggestive of a countervailing downward short-term trend since 1990. For the interval 1990-1994, the JWAC data imply a *decrease* in frequency of perhaps 3.1 missions per year; the null hypothesis of no change can be rejected at the .21 level of significance, and 46 percent of this variance is explained by the effects of time. As with other linear models with negative slopes, a nonlinear function is implied. In this case, a negative exponential growth model (graphed on the next page) provides a coefficient of -.41 (with a p value of .10), and explains 64 percent of the variance.

Recommended Frequency OHA Planning Factor

- Static averages inconsistent across databases; variance large for each
- Trendline results mixed
  - IDA data show no meaningful trend
  - JWAC data show contradictory long-term and recent experience
    - Long-term: large, significant *increase* — though residuals problematic
    - Recent: large, significant, nonlinear *decrease* since 1990



- Static averages, IDA time series, JWAC post-1990 results imply roughly similar planning factor (1-3 operations per year); JWAC long-term trend implies much higher value (ca. 13); generally high variance a problem for all
- Least-bad bet for planning factor is: 2 operations per year

What, then, do we recommend as a planning factor for OHA frequency? The static averages are inconsistent, and display high standard deviations.

The trendline results are mixed. The IDA data show no meaningful trend. The JWAC data, by contrast, display countervailing short term and long term trends. In the long term, the JWAC database shows a large, statistically significant increase in frequency, albeit one for which the regression residuals are strongly hetereoskedastic. Since 1990, on the other hand, the JWAC data show a large, significant decrease in OHA frequency.

With the exception of the JWAC long term trend, the other estimates for OHA frequency are roughly similar, and imply a figure of roughly 1-3 operations per year. By contrast, the JWAC long term trend suggests about 13 OHAs per year by 2005.

Per our decision rule, in the absence of a strong, consistent finding of an increasing or decreasing trend, we thus recommend a planning factor of 2 operations per year as the least-bad bet.

No-Fly Zones (NFZ)

	Duration in days	Frequency per year
IDA	630 (169.7)	0.17 (0.39)
JWAC	896 (141.6)	0.15 (0.37)
Significance	0.15	0.90
IDA-JWAC Average	**763**	**0.16**

Significance for rejecting null hypothesis (that IDA and JWAC are the same) using Student's t ( ) = σ

We now turn to No-Fly Zones (NFZ). Mean NFZ duration was 630 days by the IDA database, with a standard deviation of 169.7, and 896 days by the JWAC database, with a standard deviation of 141.6. This difference is unlikely to be due to chance: the null hypothesis of equal IDA and JWAC means can be rejected at the .15 level. The static average of the two databases' values is 763 days.

Mean NFZ frequency was 0.17 per year by the IDA database, with a standard deviation of 0.39, and 0.15 per year by the JWAC database, with a standard deviation of 0.37. By contrast with duration, the difference in the two databases' values for frequency is fairly likely to be due to chance: the null hypothesis of identical means can only be rejected at the 0.90 level of significance. The static average of the two databases' values is 0.16 NFZs per year.

NFZ Duration Trend

too few events for regression analysis

IDA data

r^2 =
b =
F =
P value =
residuals:

JWAC data

r^2 =
b =
F =
P value =
residuals:

Too few events (2 in the IDA database, and 3 in the JWAC data) were available for meaningful trend analysis.

Recommended NFZ Duration Planning Factor

- Static averages inconsistent across databases; moderate variance
- Trend projections problematic (too few events)
- Accepting static average is therefore least-bad bet: 760 days per operation

Without sufficient data for trend analysis, the static average of 760 days per operation must therefore be accepted.

NFZ Frequency Trend

too few events for regression analysis

IDA data

r^2 =
b =
F =
P value =
residuals:

JWAC data

r^2 =
b =
F =
P value =
residuals:

Too few events (2 in the IDA database, and 3 in the JWAC data) were available for meaningful trend analysis.

Recommended NFZ Frequency Planning Factor

- Static averages consistent across databases; high variance
- Trend projections problematic (too few events)
- Accepting static average is therefore least-bad bet: 0.2 operations per year

Without sufficient data for trend analysis, the static average of 0.2 operations per year must therefore be accepted.

Maritime Sanctions or Migrant Ops (MMO)

	Duration in days	Frequency per year
IDA	394 (293.6)	0.43 (0.67)
JWAC	35 (14.1)	0.35 (1.14)
Significance	0.15	0.85
IDA-JWAC Average	**214.5**	**0.39**

Significance for rejecting null hypothesis (that IDA and JWAC are the same) using Student's ( ) = σ

NB: There are too few events in either database to permit meaningful disaggregation into MS and MO

We now turn to Maritime Sanctions and Migrant Operations (MMO).[21] Mean MMO duration was 394 days by the IDA database, with a standard deviation of 293.6, and 35 days by the JWAC database, with a standard deviation of 14.1. These are statistically unlikely to represent random samples from the same underlying population: the null hypothesis of equal IDA and JWAC means can be rejected at the .15 level. The static average of the two databases' values is 214.5 days.

Mean MMO frequency was 0.43 per year by the IDA database, with a standard deviation of 0.67, and 0.35 per year by the JWAC database, with a standard deviation of 1.14. By contrast with duration, the respective frequency figures are statistically much more similar: the null hypothesis of identical means can only be rejected at the .0.85 level of significance. The static average of the two databases' values is 0.39 MMOs per year.

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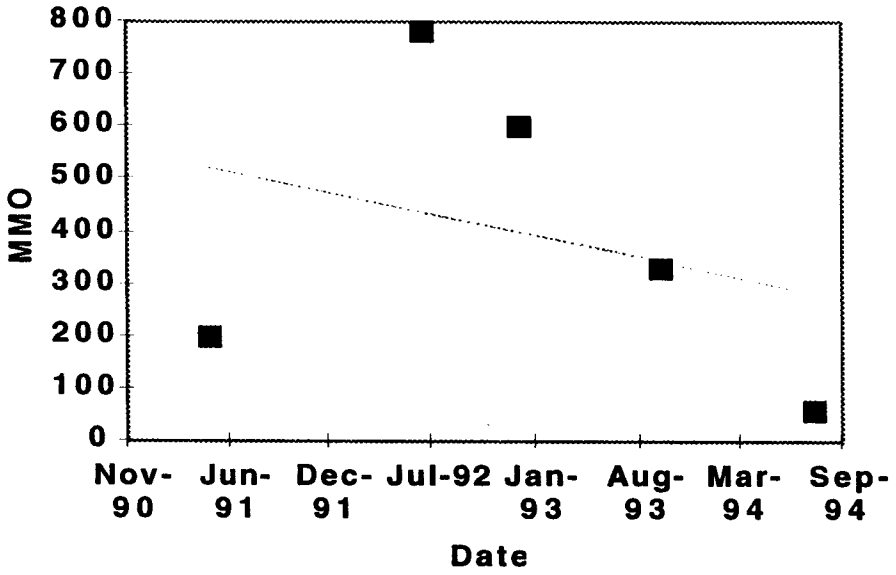
21 OASD (S&R) asked US to investigate the possibility of disaggregating the MMO category. But, neither database contained sufficient data to permit meaningful disaggregation (there are only 5 total MMO events datapoints in the IDA database and 2 in JWAC).

MMO Duration Trend



too few events for regression analysis

IDA data

$r^2 = 0.09$
$b = -0.20$
$F = 0.31$
P value = 0.62
residuals: problematic

JWAC data

$r^2 =$
$b =$
$F =$
P value =
residuals:

This slide presents the trend analysis for MMO duration. Duration in days was regressed against time, or the date on which the operation began (measured as days since January 1, 1990), for the IDA database.

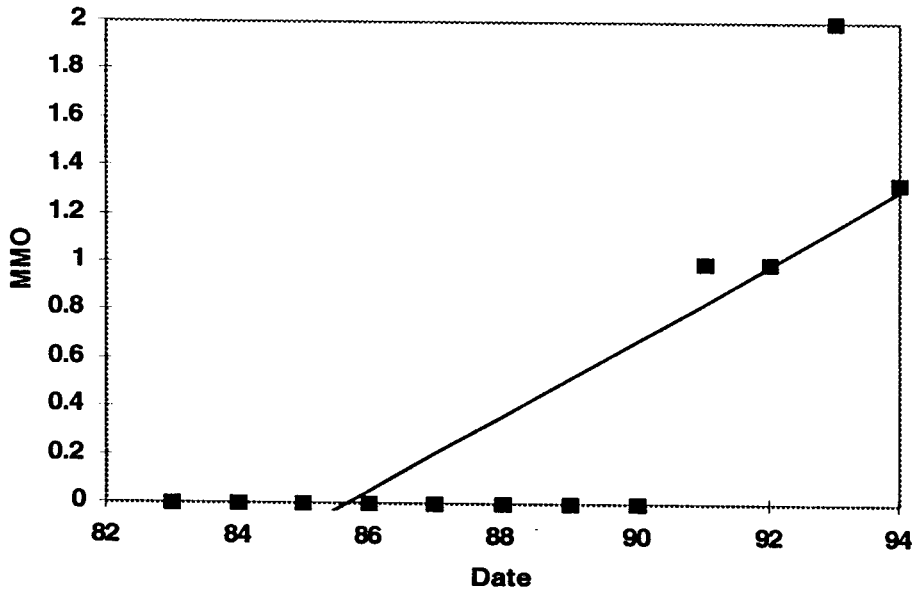
Only the IDA database contained enough events to permit meaningful analysis, and the IDA data are not numerous enough to provide much statistical power. OLS regression suggests a modest net decline in duration, but the results are not statistically significant: the null hypothesis of no relationship cannot be rejected at any level better than .62. Almost none of the variance is explained by the effects of time, and the regression residuals are heteroskedastic and serially correlated.

Recommended MMO Duration Planning Factor

- Too few events in either database to permit statistical decomposition into Maritime Sanctions and Migrant Operations
- Static averages inconsistent across databases; large variance
  - IDA and JWAC differ by an order of magnitude (394 days vs. respectively)
- Trend projections problematic (too few events)
- In absence of trend analysis, static average is therefore least-bad bet: 215 days per operation

What, then, do we recommend as a planning factor for HIP duration? The static average offers a very unsatisfactory basis for planning: the two databases' respective means differ by fully an order of magnitude, with large standard deviations in both cases. Trend analysis, on the other hand, is no better: the paucity of data and lack of any strong time correlation makes projection from these data very problematic. The data thus offer little basis for confidence in either the static average or the trend. Per our decision rule, however, in the absence of a strong case for a trend, the static average of 215 days per operation is probably the least-bad bet.

MMO Frequency Trend



too few events for regression analysis

IDA data

$r^2 = 0.64$
$\beta = 0.16$
F = 18.2
P value = 0.002
residuals: problematic

JWAC data

$r^2 =$
$\beta =$
F =
P value =
residuals:

This slide presents the trend analysis for OHA frequency. Operations were grouped by year; the number of operations in each year was then regressed against time (in years), for the IDA database.

The IDA data show a statistically significant increase in frequency over time, equivalent to roughly an additional 0.16 operations per year on average. The null hypothesis of no relationship can be rejected at the .002 level, and more than 60 percent of the variance is explained by the effects of time. While there are few MMOs in the dataset, all occurred in the last four of the 12 years covered, and most of these were in the last two years (1993 and 1994). This suggests a meaningful upward trend, although the residuals are strongly suggestive of either a nonlinear relationship, or a piecewise linear relationship with the dataset divided at 1990.

Recommended MMO Frequency Planning Factor

- Static averages roughly consistent across databases; high variance
- Trend projections
  - Too few events in JWAC for meaningful analysis
  - IDA data show strong increasing, significant linear trend (2001 projection: 2.76 events per year; 2005: 3.4 events)
    - Residuals suggest that non-linear model would be more appropriate, but can't be fit accurately without additional out-year data
    - Extrapolating data with many zero entries and few positive ones questionable, but all non-zero entries are very recent; regression results thus give reason to suspect non-static phenomenon
- Static averages and IDA trend projection differ strongly: 0.4 vice 2.8
- Linear trend is least-bad bet: 2.8 operations per year

What, then, do we recommend as a planning factor for MMO frequency? The static averages are roughly, though the standard deviations are high.

Only the IDA database contained enough events for a meaningful trend analysis. This analysis suggested a strong increasing trend. Although projection based on such a small number of events has important limitations, the fact that all the events cluster at the end of the time period gives some reason to expect a non-static phenomenon. The residuals indicate that a nonlinear model would be more appropriate to the data. Yet either a nonlinear growth form or a piecewise linear formulation with the data divided at 1990 would imply very high frequencies for out-year projections. Some form of eventual downturn is thus very likely, but without additional out-year data the form or timing of this downturn cannot be projected meaningfully. Given this, the best projection may well be a simple linear fit over the whole time period, which produces an estimate of 2.76 MMOs per year for 2001, and 3.4 per year for 2005.

The static average and the trend projection differ strongly: the average of 0.4 is only one-seventh of the 2001 projection of 2.8.

Given the apparently non-static nature of this phenomenon, we recommend that the trend projection be adopted, implying a planning factor of 2.8 operations per year as the least-bad bet.

Large Crisis Response (LCR)

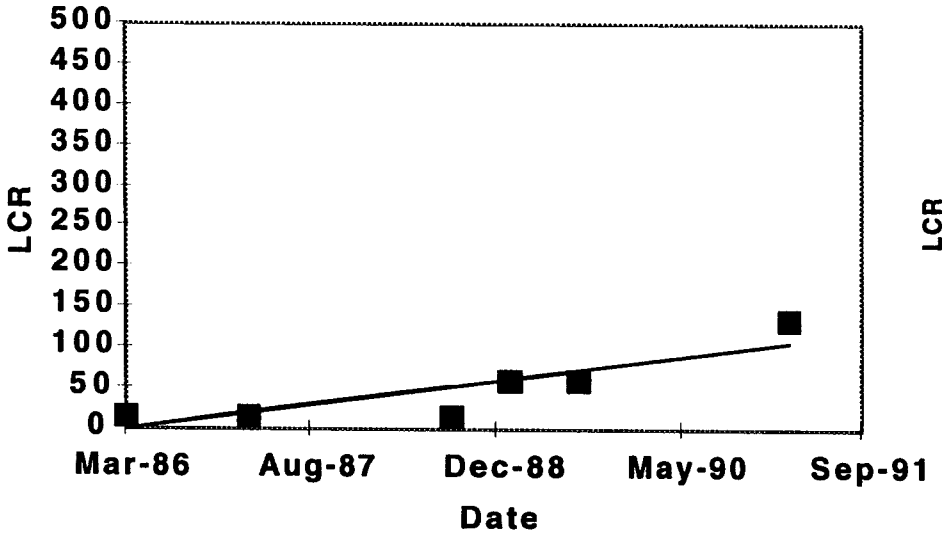
	Duration in days	Frequency per year
IDA	45 (45)	0.60 (0.79)
JWAC	70.2 (141.9)	0.55 (0.89)
Significance	0.65	0.92
IDA-JWAC Average	**57.6**	**0.58**

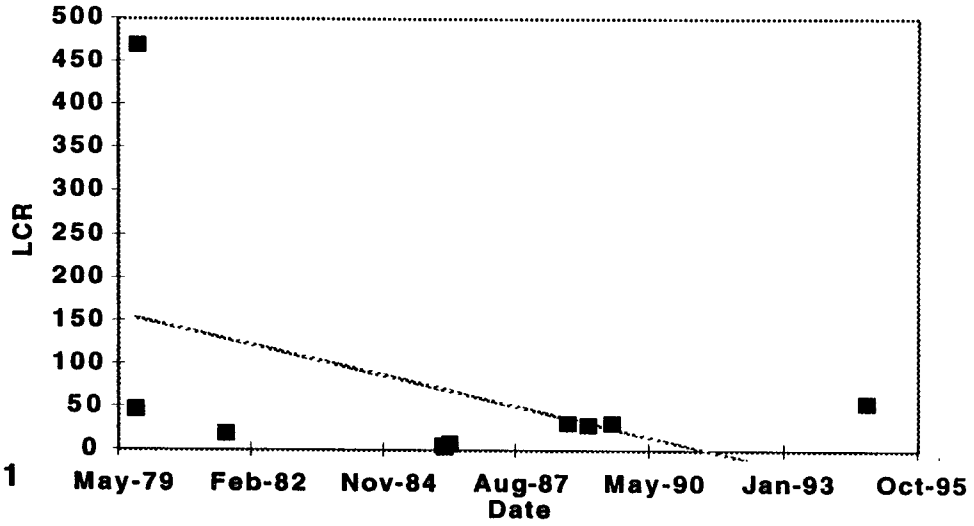
Significance for rejecting null hypothesis (that IDA and JWAC are the same) using Student's ( ) = σ

We now turn to Large Crisis Response (LCR). Mean LCR duration was 45 days by the IDA database, with a standard deviation of 45, and 70.2 days by the JWAC database, with a standard deviation of 141.9. This combination of wide divergence and high standard deviations makes it impossible to reject the null hypothesis of identical IDA and JWAC means at any level better than 0.65. The static average of the two databases' values is 57.6 days.

Mean LCR frequency was 0.6 per year by the IDA database, with a standard deviation of 0.79, and 0.55 per year by the JWAC database, with a standard deviation of 0.89. Again the standard deviations are quite large, though in this case the means are very similar. As a result, the null hypothesis of identical IDA and JWAC means can only be rejected at the 0.92 level. The static average of the two databases' values is 0.58 LCRs per year.

LCR Duration Trend





IDA data

$r^2 = 0.77$
b = 0.06
F = 16.4
P value = 0.01
residuals: problematic

JWAC data

$r^2 = 0.19$
b = -0.04
F = 1.88
P value = 0.21
residuals: problematic

This slide presents the trend analysis for LCR duration. Duration in days was regressed against time, or the date on which the operation began (measured as days since January 1, 1900), for both the IDA and JWAC databases.

The IDA data show a very strong upward trend (relative to the strength of the regression results for the other mission types). The OLS regression coefficient implies an increase of about 22 days per year in the average LCR's duration, and the null hypothesis of no relationship can be rejected at the .01 level. Almost 80 percent of the variance is explained by the effects of time. The residuals, however, are non-uniformly distributed, and suggest a nonlinear relationship with an increasing slope.

The JWAC data, by contrast, show a statistically insignificant decrease in duration: the null hypothesis of no relationship cannot be rejected at any level better than .21. Less than 20 percent of the variance is explained by the effects of time. The residuals are heteroskedastic and serially correlated. These results, however, are strongly influenced by the first two datapoints (corresponding to the augmented Caribbean deployments that began in 1979 with the discovery of the Soviet brigade in Cuba, and to Persian Gulf and Indian Ocean deployments following the 1979 Iranian seizure of the U.S. embassy). After 1982, the JWAC data, like the IDA data, show a statistically significant positive slope.[22]

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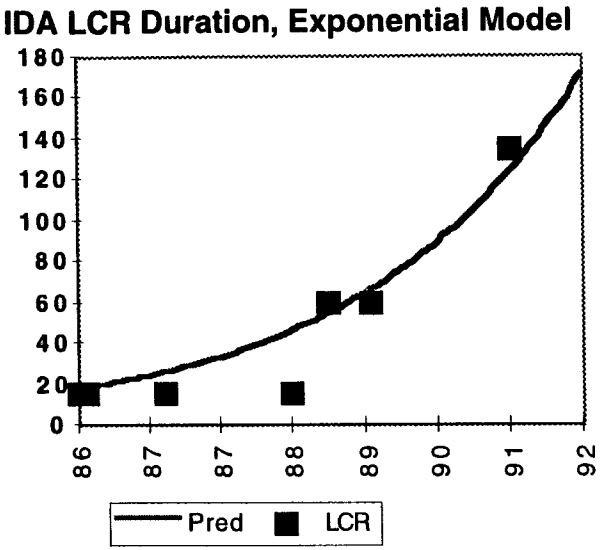
22 With a time coefficient of 0.02, a p value of .0002, and an r2 of .95.

Recommended LCR Duration Planning Factor

- Static averages' consistency unclear; large variance
- Trend projections differ, though JWAC projected downward slope is not significant
  - IDA linear model has significant strong upward trend, predicting duration of 317 days by 2001 and 402 days by 2005; but residuals imply non-linear model
  - Best non-linear fit is exponential, but predicts 11 years' duration by 2005
  - Shorter-term JWAC data shows positive slope after 1982



- Static average and trend projection widely divergent: 58 vice 317 days
- Though non-linear model fits IDA data better, 2005 projection is unrealistic. Linear trend projection is probably least-bad bet: 320 days per operation

What, then, do we recommend as a planning factor for LCR duration? The static averages' consistency is unclear: they are neither so different as to enable us to reject the null hypothesis that they are the same, nor so similar as to allow us to reject a null hypothesis that they are different. The standard deviations are very large for both databases.

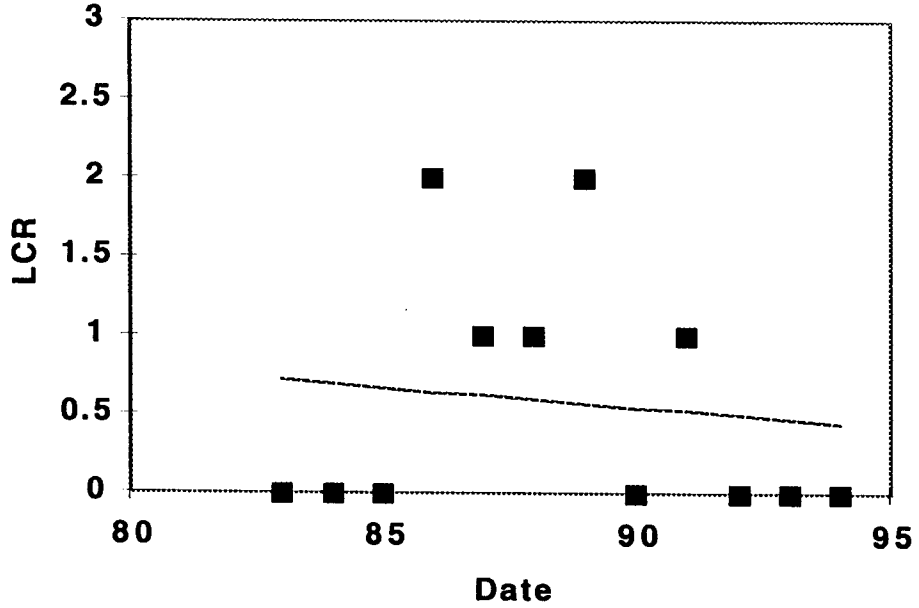
The trend analyses differ. The IDA linear model shows a strong upward trend, implying a 2001 projection of 317 days per LCR, and a 2005 projection of 402 days. The residuals indicate that a nonlinear model would be more appropriate to the data. An exponential fit provides strong statistical results, but implies an unrealistically long duration of 11 *years* per LCR by 2005. Some form of eventual downturn is thus very likely, but without additional out-year data the form or timing of this downturn cannot be projected meaningfully. Given this, the best projection may well be the simple linear fit.

The JWAC OLS results offer little confidence for a projection based on the entire dataset; for the period after 1982, however, they imply a positive slope not radically different from that the of the IDA data (with a time coefficient of 0.02, vice the IDA data's 0.06).

Once again, the trend projections and the static average imply very different planning factors. The static average of 58 days is less than one-fifth the 317 days implied by the linear fit to the IDA data.

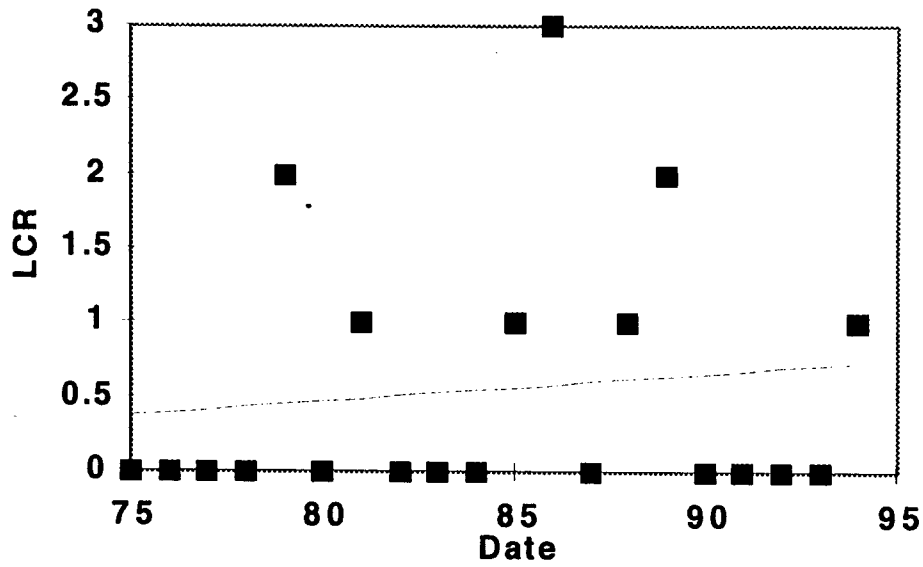
For at least the post-1982 period, the data thus suggest increasing duration. While the exponential growth model fits the IDA data better, its 2005 projection is unrealistic. Given this, the linear trend projection of about 320 days per LCR is probably the least-bad bet.

LCR Frequency Trend



IDA data

$r^2 = 0.01$
$b = -0.02$
$F = 0.13$
P value = 0.73
residuals: problematic



JWAC data

$r^2 = 0.02$
$b = 0.02$
$F = 0.29$
P value = 0.60
residuals: problematic

This slide presents the trend analysis for LCR frequency. Operations were grouped by year; the number of operations in each year was then regressed against time (in years), for both the IDA and JWAC databases.

Neither database provides any basis for a meaningful projection. In both cases, the slopes are statistically insignificant: the null hypothesis of no relationship cannot be rejected at any level better than .73 for the IDA data, and .60 for JWAC. The signs of the estimated coefficients, moreover, are opposite: negative for the IDA data, and positive for JWAC. In neither case is more than two percent of the variance explained by the effects of time, and in both cases the residuals are heteroskedastic.

Recommended LCR Frequency Planning Factor

- Static averages consistent across databases; high variance
- No reliable trend in data
  - Databases project contradictory slopes
  - Both regression models poorly predictive and non-
- Static average is therefore least-bad bet:0.6 operations per year

What, then, do we recommend as a planning factor for LCR frequency? The static averages are statistically consistent in spite of high standard deviations. The trend analysis shows no evidence of any meaningful change in LCR frequency over time: the two databases project contradictory slopes, and both regression models are poorly predictive and statistically insignificant. Given this, the static average of 0.6 operations per year is thus the least-bad bet.

Intervention (INT)

	Duration in days	Frequency per year
IDA	45 (26)	0.26 (0.45)
JWAC	19 (5.7)	0.15 (0.37)
Significance	0.28	0.50
IDA-JWAC Average	**32**	**0.21**

Significance for rejecting null hypothesis (that IDA and JWAC are the same) using Student's ( ) = σ

We now turn to Intervention (INT). Mean INT duration was 45 days by the IDA database, with a standard deviation of 26, and 19 days by the JWAC database, with a standard deviation of 5.7. The null hypothesis of identical IDA and JWAC means cannot be rejected at any level better than 0.28. The static average of the two databases' values is 32 days.

Mean INT frequency was 0.26 per year by the IDA database, with a standard deviation of 0.45, and 0.15 per year by the JWAC database, with a standard deviation of 0.37. The null hypothesis of identical IDA and JWAC means cannot be rejected at any level better than .5. The static average of the two databases' values is 0.21 operations per year.

INT Duration Trend

too few events for regression analysis

IDA data

r^2 =
β =
F =
P value =
residuals:

JWAC data

r^2 =
β =
F =
P value =
residuals:

Too few events (3 in the IDA database, and 2 in the JWAC data) were available for meaningful trend analysis.

Recommended INT Duration Planning Factor

- Static averages' consistency unclear; moderate variance
- Trend projections problematic (too few events)
- Accepting static average is therefore least-bad bet: 32 days per operation

Without sufficient data for trend analysis, the static average of 32 days per operation must therefore be accepted.

INT Frequency Trend

too few events for regression analysis

IDA data

$r^2 =$
$\beta =$
$F =$
P value =
residuals:

JWAC data

$r^2 =$
$\beta =$
$F =$
P value =
residuals:

Too few events (3 in the IDA database, and 2 in the JWAC data) were available for meaningful trend analysis.

Recommended INT Frequency Planning Factor

- Static averages' consistency unclear; high variance
- Trend projections problematic (too few events)
- Accepting static average is therefore least-bad bet: 0.2 operations per year

Without sufficient data for trend analysis, the static average of 0.2 operations per year must therefore be accepted.

Large Peace Operation (LPO)

	Duration in days	Frequency per year
IDA	15 (only one event)	0.09 (0.29)
JWAC	149.6 (204.1)	0.40 (0.60)
Significance	n/a	0.10
IDA-JWAC Average	**82.3**	**0.25**

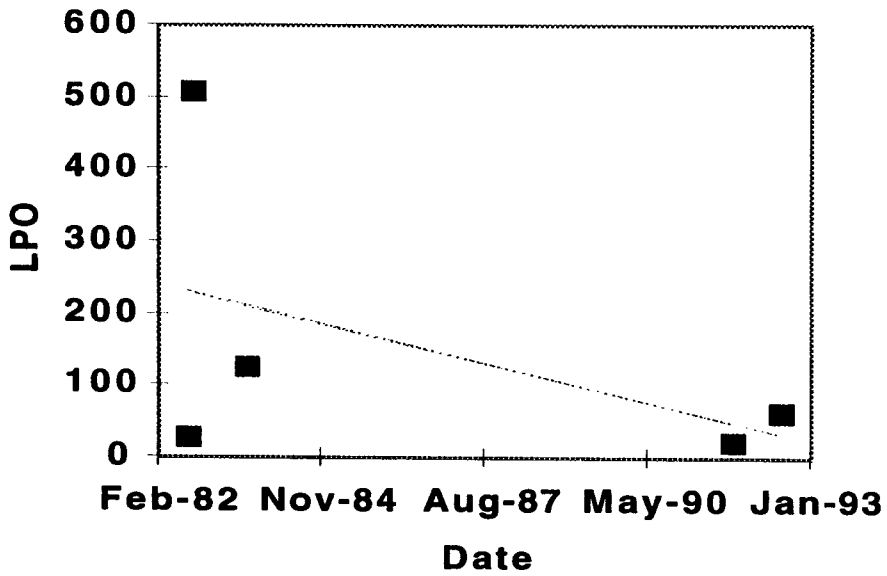
Significance for rejecting null hypothesis (that IDA and JWAC are the same) using Student's t ( ) = σ

We now turn to Large Peace Operation (LPO). The IDA database contains only a single LPO; its duration was 15 days. For the JWAC database, mean LPO duration was 149.6 days, with a standard deviation of 204.1. Although the single IDA event was only about one-tenth the duration of the JWAC mean, the high JWAC standard deviation suggests the possibility that they were drawn from the same underlying population: however, since there is only one LPO event in the JWAC database, a t statistic cannot be calculated. The static average of the IDA value and the JWAC mean is 82.3 days.

Mean LPO frequency was 0.09 per year by the IDA database, with a standard deviation of 0.29, and 0.40 per year by the JWAC database, with a standard deviation of 0.60. It is statistically unlikely that these values represent samples from the same underlying population: the null hypothesis of equal IDA and JWAC means can be rejected at the .1 level. The static average of the two databases' values is 0.25 LPOs per year.

LPO Duration Trend

too few events for regression analysis



IDA data

r^2 =
β =
F =
P value =
residuals:

JWAC data

$r^2 = 0.24$
$\beta = -0.05$
F = 0.94
P value = 0.40
residuals: problematic

This slide presents the trend analysis for LPO duration. Duration in days was regressed against time, or the date on which the operation began (measured as days since January 1, 1900), for the JWAC database; the IDA database contained too few events (one) for trend analysis.

The JWAC data show a statistically insignificant decline in LPO duration. The OLS regression coefficient implies a decrease of about 18 days per year in the average LPO's duration, but the null hypothesis of no relationship cannot be rejected at any level better than .4. Only 24 percent of the variance is explained by the effects of time. The residuals are strongly heteroskedastic.

Recommended LPO Duration Planning Factor

- JWAC average not statistically different than IDA value
  - JWAC average has high variance
  - Since IDA n = 1 and JWAC n = 5, IDA/JWAC average of 82.3 days may have less utility that JWAC-only average of 149.6
- Trend projections problematic
  - Can't be calculated for IDA, and JWAC shows downward but significant trend
- In absence of trend analysis, accepting JWAC static average is therefore least-bad bet: 150 days per operation

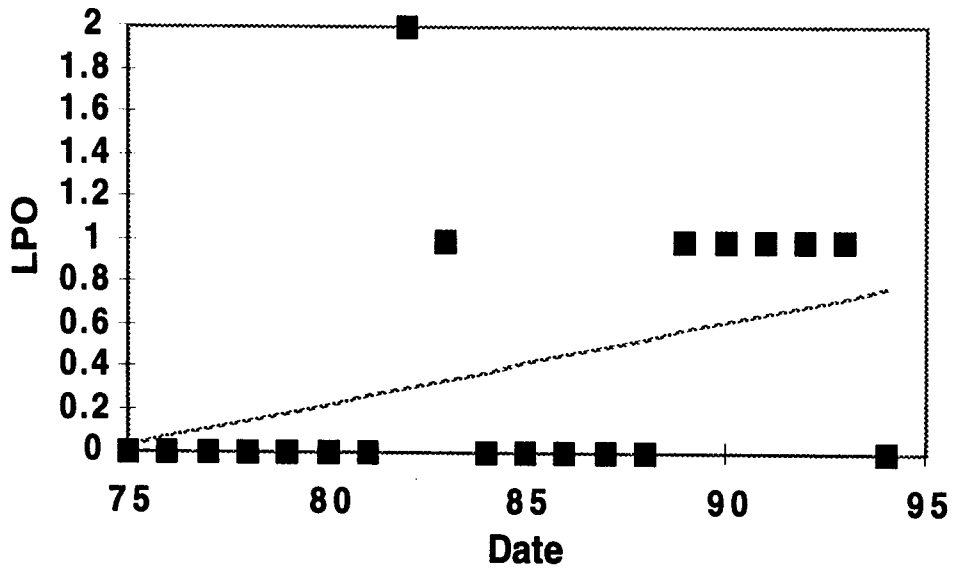
What, then, do we recommend as a planning factor for LCR duration? Few LPOs are documented in either database, and the single event in the IDA dataset is far from the JWAC mean. Rather than averaging a single value (IDA) and a mean of five values (JWAC) that may or may not have been drawn from a comparable underlying population, it probably makes more sense to take the JWAC-only value of 149.6 days as the best representation of the static average.

Trend analysis is problematic. Only JWAC provides enough data for regression, and the results are statistically insignificant.

The picture is thus again cloudy. Per our decision rule, however, in the absence of a strong case for a trend, the static average (this time drawn from the JWAC database alone) of about 150 days is the least-bad bet.

LPO Frequency Trend

too few events for regression analysis



IDA data

r^2 =
β =
F =
P value =
residuals:

JWAC data

$r^2 = 0.15$
β = 0.04
F = 3.16
P value = 0.09
residuals: problematic

This slide presents the trend analysis for LCR frequency. Operations were grouped by year; the number of operations in each year was then regressed against time (in years), for the JWAC database (again, the single event in the IDA data provides no basis for trend analysis).

The JWAC data provide some evidence for an increasing trend. The OLS coefficient implies an increase of about .04 LPOs per year; the null hypothesis of no relationship can be rejected at the .09 level. Only about 15 percent of the variance is explained by the effects of time, however, and the residuals are heteroskedastic and serially correlated. While these data reflect very few events (eight operations in twenty years)[23] most occur late in the time period covered (60 percent are in the last 6 of the 20 years), providing some basis for anticipating that the average frequency may be rising, even though the statistical results are not extremely strong, and although the residuals are suggestive of a nonlinear relationship.

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23 Having reported on slide 61 that there were five LPOs in the JWAC database for purposes of computing duration, why do we show eight events here? Simply because there are three operations in the JWAC database (logistics support to the UN in Nomibia in March 1989, and post-invasion deployments in Panama in January 1990 and to Haiti in October 1993) that have start dates, but no end dates recorded.

Recommended LPO Frequency Planning Factor

- Static averages inconsistent; variance high
- Trend is probably upward, but evidence incomplete
  - IDA has too few events
  - JWAC linear trend is significant, and predicts 1.0 operations per year in 2001 and 1.2 in 2005; data show non-linear form, but cannot fit accurately without additional out-year data
- Static average and trendline projection diverge widely
  - Static: 0.25; JWAC 2001 linear projection: 1.0
- In absence of realistic nonlinear trend analysis, linear projection is probably least-bad bet: 1 operation per year

What, then, do we recommend as a planning factor for LPO frequency? The static averages are inconsistent and display high standard deviations.

Only the JWAC database contained enough events for a meaningful trend analysis. This analysis gave some indication of an increasing trend. Although projection based on such a small number of events has important limitations, the fact that most events cluster near the end of the time period may give reason to expect a non-static phenomenon. The residuals indicate that a nonlinear model would be more appropriate to the data. Yet a nonlinear growth form would imply very high frequencies for out-year projections. Some form of eventual downturn is thus very likely, but without additional out-year data the form or timing of this downturn cannot be projected meaningfully. Given this, the best projection may well be a simple linear fit over the whole time period, which produces an estimate of one LPO per year for 2001, and 1.2 per year for 2005.

The static average and the trend projection differ strongly: the static average of 0.25 is only one-fourth of the 2001 projection.

Given the apparently non-static nature of this phenomenon, we recommend that the trend projection be adopted, implying a planning factor of 1 operation per year as the least-bad bet.

Interpositional Peacekeeping (IP)

	Duration in days	Frequency per year
IDA	2,375 (2,708)	0.17 (0.39)
JWAC	1,806 (2,561)	0.20 (0.52)
Significance	0.83	0.85
IDA-JWAC Average	**2,090**	**0.19**

Significance for rejecting null hypothesis (that IDA and JWAC are the same) using Student's t
( ) = σ

We now turn to Interpositional Peacekeeping (IP). Mean IP duration was 2,375 days by the IDA database, with a standard deviation of 2,708, and 1,806 days by the JWAC database, with a standard deviation of 2,561. The null hypothesis of identical IDA and JWAC means can only be rejected at the .0.83 level. The static average of the two databases' values is 2,090 days.

Mean IP frequency was 0.17 per year by the IDA database, with a standard deviation of 0.93, and 0.20 per year by the JWAC database, with a standard deviation of 0.52. The null hypothesis of identical IDA and JWAC means can be rejected at the 0.85 level. The static average of the two databases' values is 0.19 operations per year.

IP Duration Trend

too few events for regression analysis

IDA data

r^2 =
β =
F =
P value =
residuals:

JWAC data

r^2 =
β =
F =
P value =
residuals:

Too few events (2 in the IDA database, and 3 in the JWAC data) were available for meaningful trend analysis.

Recommended IP Duration Planning Factor

- Static averages roughly consistent across databases; high variance
- Trend projections problematic (too few events)
- Static average is therefore least-bad bet: 2,000 days per operation

Without sufficient data for trend analysis, the static average of about 2,000 days per operation must therefore be accepted.

IP Frequency Trend

too few events for regression analysis

IDA data

r^2 =
β =
F =
P value =
residuals:

JWAC data

r^2 =
β =
F =
P value =
residuals:

Too few events (2 in the IDA database, and 3 in the JWAC data) were available for meaningful trend analysis.

Recommended IP Frequency Planning Factor

- Static averages roughly consistent across databases; high variance
- Trend projections problematic (too few events)
- Static average is therefore least-bad bet: 0.2 operations per year

Without sufficient data for trend analysis, the static average of 0.2 operations per year must therefore be accepted.

Summary Planning Factor Recommendations

	Duration (days)		Frequency (per yr)	
Mission	IDA	S&R	IDA	S&R
NEO	44	21	1	1.2
SCR	104	30	2	0.7
HIP	270	45	4	2
CHA	?	75	?	0.3
OHA	30	75	2	0.5
NFZ	760	1,095	0.2	0.4
MMO	215	?	2.8	0.5
LCR	320	45	0.6	0.4
INT	32	243	0.2	0.1
LPO	150	608	1.0	0.4
IP	2,000	1,095	0.2	0.4

This slide pulls together the planning factor recommendations developed above, and juxtaposes them to the OSD/S&R values. In general, there is substantial divergence. Of the 19 possible comparisons, in 15 the IDA and S&R values differ by a factor of two or more. In four cases, or more than 20 percent of the total, the IDA and S&R values differ by more than a factor of five. In only two cases are the values within 30 percent of one another; in the closest single case (NEO frequency), the values differ by 20 percent. There is some tendency for the IDA values to exceed S&R's -- in 12 of the 19 cases, or about 60 percent, the IDA value is larger -- but the difference does not appear to be systematic.

Utility of Planning Factor Recommendations

- Databases used in this study were not designed for this purpose
  - Coding inconsistent, incomplete
- Data not well-behaved
- Narrow range of considerations
  - Factors not considered (threats, policy shifts) may be important
- Best use now may be as focus of OSD attention
  - Where factors from this study and S&R's differ greatly *and*
  - Where S&R's factors are non-marginal drivers of forces, tempos
  - Re-analyze in those cases the rationale for S&R factors

What should one make of these divergences? Given the weakness of the information base underlying the IDA recommendations, it would be a mistake to place great weight on the values that result. While they are the best that can be obtained from the available databases, these databases were not designed for this purpose. Their coding is substantially inconsistent and incomplete, and the resulting data are neither well-behaved nor highly reliable. Moreover, even if the data were of better quality, they necessarily address only a subset of the issues that matter for force planning, and would thus at best represent one among many inputs in the planning process.

Given these limitations, professional judgment is at least as sound a basis for planning. In fact, the best use of these results is probably as a device for facilitating the development of judmentally-determined planning factors. In particular, where the factors developed above and S&R's initial judgments differ greatly, *and* where the difference matters -- that is, where the S&R factors represent non-marginal drivers of forces or operating tempos -- the difference between the databases' implications and the S&R judgment indicates an area where further analysis would be most useful, and where re-examination of the judgment underlying the S&R figures would be well-advised. While this falls considerably short of an empirically rigorous procedure for planning, it is probably the closest that current empirical data in this area will permit one to get.

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APPENDIX A
DATABASE CODE BOOKS

Database Code Book

Assumptions about the frequency, duration, size, and nature of military operations that may be required in the future are key to many of the analyses being undertaken in support of the Quadrennial Defense Review (QDR) and similar assessments. The Office of the Assistant Secretary of Defense (Strategy and Resources) has asked the Institute for Defense Analyses (IDA) to help improve the quality of those assumptions by comparing them statistically to military operations in the past. IDA collected a number of existing databases and utilized four of them in providing OASD(S&R) with a characterization of U.S. military operations over past periods for such factors as frequency, duration, forces and personnel involved, unit types, and missions performed, and where possible both averages and maxima for these quantities. The results of this analysis are contained in the annotated briefing which this code book supplements.

The purpose of this code book is to present the raw data used by IDA in it's analysis of the databases for the factors mentioned above. Each of the four databases, described individually below, is presented here along with a key to understand the coding used in the databases. The databases are not presented in their entirety, but only the portions relevant to IDA's analysis and the ability of the reader to reconstruct that analysis. For a more complete understanding of the purpose, methodology, and findings of each database, the reader is advised to contact the respective author(s) to obtain a copy of the study(ies).

The first of the databases presented is the *Force Employment Study (FES),* developed by the US Army Concepts Analysis Agency and published in, February 1991. Similar to IDA's purpose, CAA sought to provide a reference database for decisionmakers and data for simulations and war games. The study analyzed forty-nine incidents involving the Army from April 1975 to July 1990, essentially covering the years between Vietnam and Desert Storm. The database considered both CONUS and OCONUS events and established a minimum reporting size of 50 personnel. Attempts by IDA to contact the originating office in CAA for discussion were unsuccessful since the office has been disbanded and the personal authors are no longer at CAA. The CAA study may be obtained directly from the Defense Technical Information Center (DTIC).

The second database was developed by DFI International and published as *The Use of USAF Assets for Presence, Final Report*, in November 15, 1995. This study was conducted on behalf of the Air Force Studies and Analyses Agency. The DFI study covers the period from 1981 to 1996 and was designed to assist the Air Force in better understanding Presence missions, as defined by Joint Publication 3-07 (16 June 1995). No minimum reporting size in terms of personnel or equipment existed and only events with USAF participation outside of the United States were included. At the time of IDA's study the DFI database was in a "rolling final" state

with the database somewhat improved upon from that used in the DFI citation above. IDA used the improved version of the database as reproduced in this code book. The DFI database contains over 1,000 entries, of which the majority were exercises which IDA elected not to consider in the analysis of the database. IDA did meet with one of authors, Renee Lajoie, to discuss the database.

The third database considered was that developed by the Institute for Defense Analyses in an earlier study supporting the Commission on Roles and Missions. Working Paper D-4, *Integrated Assessments of Presence Alternatives* by Johnathan Wallis, January 22, 1995, contained in *Presence Analyses for the Commission on Roles and Missions of the Armed Forces,* James S. Thomason, et al., April 1995, IDA Document D-1707. This database covered the period January 1983 to September 1994 and included events with involvement by any of the Services outside of the United States. Unit sizes down to platoon-level and individual aircraft are included. Since the author of this database was also working on the OASD(S&R) study, IDA had a thorough understanding of the database.

The fourth and final database selected for inclusion in IDA's analysis was in draft development by the Joint Warfare Analysis Center; *MOOTW Case Histories and Database*. This database is partially based on work done by the Library of Congress, Federal Research Division, and is quite broad in scope, including dozens of variables relating to economic, political, and social factors, few of which bore relevance to IDA's study. The database covers 1975 to mid-1996, beginning with evacuation operations from Vietnam in 1975 but not including combat operations related to the war itself. The database is multi-Service and only events originating outside of the United States are included. Since the database was still in draft form, however, IDA lacked explanatory documentation for the database. Because none of the events listed were described with more than one or two words of text, IDA was forced to rely upon the databases above and professional judgment to a greater extent than with the other databases when evaluating these events.

Each of these four databases was constructed for a different purpose, contained differing variables, assumptions, and formats, and arrived in various states of repair. Numerous attempts were made at correcting errors, filling in missing data, and synchronizing the databases where possible. Given these difficulties it was decided to analyze each database independently rather than combining the data sets into a single unwieldy set of questionable consistency, quality, and coverage. Any portion of the data set modified by IDA in correction of an error or inconsistency has been duly noted in the comments column IDA added to each data set.

The following section contains a list of the event codes developed by OASD(S&R) with comment by IDA, and used in characterizing the missions contained in the four databases. IDA coding and analysis of the databases was conducted from January to May 1997.

The following section contains a list of the event codes developed by OASD(S&R) with comment by IDA, and used in characterizing the missions contained in the four databases. IDA coding and analysis of the databases was conducted from January to May 1997.

1	NEO	Non-Combatant Evacuation. Overseas evacuations without consent of the host country. Involves use of force or preparations to do so, and/or use of DoD assets for lift or logistics. Does not include administrative evacuations that may have small levels of DoD support (3 or fewer aircraft or 40 personnel or less). Example: Operation Sharp Edge in Liberia.
2	SCR	Small Crisis Response/Small Show of Force. Purposeful deployment of forces or movement of forward deployed forces. Does not include scheduled forward deployments of forces (such as CVBG's), nor scheduled training or exercises. Includes freedom of navigation operations. Size criteria include any force less than a CVBG + an ARG, less than a brigade, or less than a wing. Example: sending AWACS to Saudi Arabia to monitor fighting between Iran and Iraq.
3	HIP	Humanitarian Intervention Peacekeeping. Operations to alleviate civilian suffering arising from conflicts (external or internal) to which the U.S. is not a party. Involves use of force or willingness and preparations to do so. Example: Operation Provide Comfort in Iraq.
4	CHA	CONUS Humanitarian Assistance. Operations in the continental United States to alleviate suffering caused by natural or man-made disasters. Example: Cleanup after Hurricane Andrew.
5	OHA	OCONUS Humanitarian Assistance. Operations abroad to alleviate suffering caused by natural or man-made disasters. Conducted only with the consent of the host country. Example: Operation Sea Angel in Bangladesh.
6	NFZ	No-Fly Zone. Designed to prevent air operations by others in given exclusion zones outside the context of an MRC or other large-scale operation. Includes only operations whose primary purpose is a no-fly zone. Example: Operation Southern Watch in Iraq.

7	MMO	Maritime Sanctions Enforcement or Migrant Operations. Maritime sanctions enforcement operations to stop seaborne flow of proscribed material to prohibited areas. Includes only operations whose primary purpose is maritime interdiction in and of itself. Migrant operations to prevent would be illegal migrants from reaching the United States and care and repatriation of those intercepted. Example: Operation Support Democracy in Haiti.
8	LCR	Large Crisis Response/Large Show of Force. Purposeful deployment of forces or movement of forward deployed forces. Does not include scheduled forward deployments of forces (such as CVBG's), nor scheduled training or exercises. Includes freedom of navigation operations. Size criteria include any force greater than a CVBG + an ARG, a brigade or greater, or a wing or greater. Example: Operation Vigilant Warrior in Iraq.
9	INT	Intervention. Large scale operations in which the use of force is the primary means to accomplish the mission. This includes the forceful implementation of peace agreements if necessary. Example: Operation Desert Storm in Kuwait.
10	LPO	Large Peace Operation. Implementation of peace agreements or peacekeeping type operations. Does not include missions whose primary focus is the imposition of peace through force, though the use of force or threat thereof is possible if necessary to support the large peace operation. Example: Multi-National Force 1 and 2 in Lebanon.
11	IP	Interpositional Peacekeeping. Interposition of military forces between adversaries. Does not include missions whose primary focus is the imposition of peace through force. Example: UNPROFOR in Macedonia.
999	Other	Other. Includes a variety of operations deemed significant but not included in other categories. This operations include counternarcotics operations, nation-building activities, and assorted humanitarian and relief type operations. Example: JTF Full Accounting in Vietnam.

Research Note: After effective completion of the project, the authors discovered a coding inconsistency on their part. Event #53 in the IDA database is coded as a Large Crisis Response (LCR), based on the involvement of a CVBG and an ARG. To the contrary, the JWAC entry for Sadat-Sudan, start date 7 Oct 81, is coded as a Small Crisis Response (SCR), also with the involvement of a CVBG and an ARG. IDA event #53 should be correctly coded as a SCR.

CAA Code Book and Database

CAA Database Coding

Operation: Either the official military operation name for a given event (e.g. Urgent Fury) or a short phrase describing the event (e.g. snow removal Hartford).

Duration: The length of the event. This figure is computed by subtracting the start date from the end date and adding one day. This provides a consistent formula for dealing with events that begin and end on the same day and would otherwise result in a zero duration. This figure is derived by a formula in the spreadsheet. The original CAA duration calculation used the formula of end date minus start date, and modified the formula by adding one day when the duration would otherwise have resulted in a zero duration. In order to correct for this inconsistency, IDA adopted the above mentioned formula ((end date - start date) +1 day) not only in the CAA database but across all four databases.

Unit: The units which participated in a given operation.

Type Unit: An inconsistent breakout of unit types by function. Combat Service Support, listed below, includes for example, graves registration, maintenance, and transportation units, which are broken out separately. The rationale for this is unclear since the Unit column appears to provide enough detail to provide a complete functional breakout. The acronyms are as follows:

AD	Air Defense
AG	Adjutant General
AR	Armor
AV	Aviation
CA	Civil Affairs
CAV	Cavalry
CM	Chemical
CSS	Combat Service Support
EN	Engineer

FA	Field Artillery
GR	Graves Registration
IN	Infantry
JAG	Judge Advocate General
MAINT	Maintenance
MI	Military Intelligence
MIL H	Military History
MP	Military Police
MS	Medical
OD	Ordnance
PA	Public Affairs
PSYOP	Psychological Operations
QM	Quartermaster
SC	Signal
TC	Transportation

Strength: The number of personnel in a given unit. Based on the CAA documentation it is unclear if this is authorized, assigned, actual, or deployed strength.

Comp: Component. The three components are AA (Active Army), AR (Army Reserve), and NG (National Guard).

Man-Days: The product of duration times strength. This assumes that the entire unit deployed/redeployed on the same day.

Start Date: The date the unit deployed in a year/month/day format.

End Date: The date the unit redeployed in a year/month/day format.

SSC #: IDA's coding of the event based upon criteria determined by the Office of the Secretary of Defense. For a complete discussion of SSC coding see the introduction section to the coding book.

SSC Type: Alphabetic characters corresponding to the SSC # and provided for the reader to more easily convert the numeric coding to a specific mission type to a plain English description. Both numeric and alphabetic coding are used as each offers advantages in working with the data.

Comments: Comments concerning the addition/subtraction of data to the database, the validity of data, notes about a variety of errors, any modifications to the database, and other issues of note are recorded here. These are IDA's comments and not those of the original authors.

Table D-1. Target Acquisition Battery, Lebanon

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
TARGET ACQUISITION BTRY LE	125	BTRY C, 25TH FA, FT SILL, OK	FA	33	AA	4,125	83-08-13	83-12-15	10	LPO	
Total				33		4,125					

Table D-2. Urgent Fury, Grenada

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
URGENT FURY GRENAD	11	3d BN, 4th AD, FT BRAGG, NC	AD	31	AA	341	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	82d AVN BN, 82 ABN, FT BRAGG, NC	AV	217	AA	2,387	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	96th CA BN, FT BRAGG, NC	CA	32	AA	352	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	1st SQ, 17 CAV, FT BRAGG, NC	CAV	45	AA	495	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	101 CHEM CO, 101 st AA, FT BRAGG, NC	CM	46	AA	506	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	82d ABN DIV MMC, 82 ABN, FT BRAGG, NC	CSS	6	AA	66	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	407th SUP & SVC BN, 82 ABN, FT BRAGG, NC	CSS	27	AA	297	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	HQ, 82d ABN DIV SUPCOM, FT BRAGG, NC	EN	11	AA	121	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	307th ENG BN, 82 ABN, FT BRAGG, NC	EN	78	AA	858	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	618th ENG CO, 82 ABN, FT BRAGG, NC	FA	82	AA	902	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	1st BN, 319 FA, 82 ABN, FT BRAGG, NC	FA	42	AA	462	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	1st BN, 320th FA, 82 ABN, FT BRAGG, NC	FA	46	AA	506	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	HQ, 82d ABN DIV ARTY, FT BRAGG, NC	IN	13	AA	143	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	2nd BN, 75th INF, FT LEWIS, WA	IN	550	AA	6,050	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	2d BN,325th INF, 82d ABN, FT BRAGG, NC	IN	461	AA	5,071	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	1st BN, 75th INF, FT STEWART, GA	IN	550	AA	6,050	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	HQ, 3rd BDE, 82d ABN, FT BRAGG, NC	IN	42	AA	462	83-10-24	83-11-03	9	INT	

URGENT FURY GRENAD	11	2d BN, 508 INF, 82 ABN, FT BRAGG, NC	IN	661	AA	7,271	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	3d BN, 325th INF, 82d ABN, FT BRAGG, NC	IN	652	AA	7,172	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	1st BN, 505th INF, 82d ABN, FT BRAGG, NC	IN	636	AA	6,996	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	1st BN, 508th INF, 82d ABN, FT BRAGG, NC	IN	661	AA	7,271	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	HQ, 2d BDE, 82d ABN, FT BRAGG, NC	IN	34	AA	374	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	HQ, XVIII ABN CORPS, FT BRAGG, NC	IN	44	AA	484	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	2d BN, 505th INF, 82d ABN, FT BRAGG, NC	IN	604	AA	6,644	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	2d BN, 504th INF, 82d ABN, FT BRAGG, NC	IN	384	AA	4,224	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	HQ, 82d ABN DIV, FT BRAGG, NC	IN	94	AA	1,034	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	782 MAINT BN, 82 ABN, FT BRAGG, NC	MAINT	40	AA	440	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	313th MS BN, 82 ABN, FT BRAGG, NC	MS	36	AA	396	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	307th MS BN, 82 ABN, FT BRAGG, NC	MS	34	AA	374	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	57th MS DET, 1 COSCOM, FT BRAGG, NC	MS	17	AA	187	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	5th MASH, 1 COSCOM, FT BRAGG, NC	MS	25	AA	275	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	248th MS DET, 82 ABN, FT BRAGG, NC	MS	34	AA	374	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	65th MP CO, FT BRAGG, NC	MP	130	AA	1,430	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	118th MP CO, FT BRAGG, NC	MP	92	AA	1,012	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	82d MP CO, 82 ABN, FT BRAGG, NC	MP	82	AA	902	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	HQ, 503d MP BN, 82d ABN DIV, FT BRAGG, NC	MP	46	AA	506	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	21st MP CO, FT BRAGG, NC	MP	110	AA	1,210	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	1st PSYOPS BN, FT BRAGG, NC	PSYOP	30	AA	330	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	HQ, 4th PSYOPS GP, FT BRAGG, NC	PSYOP	32	AA	352	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	82d SIG BN, 82 ABN, FT BRAGG, NC	SC	49	AA	539	83-10-24	83-11-03	9	INT	
URGENT FURY GRENAD	11	403 TRANS DET, 1 COSCOM, FT BRAGG, NC	TC	10	AA	110	83-10-24	83-11-03	9	INT	
Total				6,816		74,976					

Table D-3. Just Cause, Panama

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
JUST CAUSE PANAMA	43	2d BN, 62d AD, 7 ID, FT ORD, CA	AD	54	AA	2,322	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	3d BN, 4th AD, 82d ABN, FT BRAGG, NC	AD	25	AA	1,075	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	573dPERSSVC CO, 1 COSCOM, FT BRAGG, NC	AG	3	AA	129	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	129th POSTALCO, 1 COSCOM, FT BRAGG, NC	AG	6	AA	258	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	3d BN, 73d AR, 82d ABN, FT BRAGG, NC	AR	41	AA	1,763	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	82d AVN BDE, 82d ABN, FT BRAGG, NC	AV	44	AA	1,892	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	18 AVN BDE, FT BRAGG, NC	AV	45	AA	1,935	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	159 AVN CO, 1 COSCOM, FT BRAGG, NC	AV	25	AA	1,075	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	7th ID AVN BDE, FT ORD, CA	AV	344	AA	14,792	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHC, 1st COSCOM, FT BRAGG, NC	CSS	59	AA	2,537	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	364th SUP&SVCCO, 1 COSCOM, FT BRAGG, NC	CSS	32	AA	1,376	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	7 ID DIS COM, FT ORD, CA	CSS	373	AA	16,039	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	406th GEN SPT CO, 1 COSCOM, FT BRAGG, NC	CSS	47	AA	2,021	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	249th SUP CO, 1 COSCOM, FT BRAGG, NC	CSS	7	AA	301	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	259th FLD SVC CO, 1 COSCOM, FT BRAGG, NC	CSS	9	AA	387	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	2d MMC, 1 COSCOM, FT BRAGG, NC	CSS	10	AA	430	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	82d DIS COM, 82 ABN, FT BRAGG, NC	CSS	3	AA	129	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	C CO., 7th S&S, BN, 7 ID, FT ORD, CA	CSS		AA	0	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	407th S&S BN, 82d ABN, FT BRAGG, NC	CSS	7	AA	301	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	B CO., 7th S&S BN, 7 ID, FT ORD, CA	CSS		AA	0	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	A CO 7th S&S CO, 7 ID, FT ORD, CA	CSS		AA	0	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	330th MMC, 1 COSCOM, FT BRAGG, NC	CSS	25	AA	1,075	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	59th ENG CO, FT ORD, CA	EN		AA	0	89-12-20	90-01-31	9	INT	

JUST CAUSE PANAMA	43	13th ENG BN, 7 ID, FT ORD, CA	EN	176	AA	7,568	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	20th ENG BDE, FT BRAGG, NC	EN	1	AA	43	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	307th ENG BN, 82D ABN, FT BRAGG, NC	EN	56	AA	2,408	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	3 BN, 319th FA, 82d ABN, FT BRAGG, NC	FA	76	AA	3,268	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	XVIII ABN CORPS ARTY, FT BRAGG, NC	FA	13	AA	559	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	DIV ARTY, 7 ID, FT ORD, CA	FA	539	AA	23,177	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	XVIII ABN CORP SFI, FT BRAGG, NC	FI	13	AA	559	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHC, 2 BDE, 7 ID, FT ORD, CA	IN	75	AA	3,225	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHC, 2d BDE, 82d ABN, FT BRAGG, NC	IN	2	AA	86	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHC, 3 BDE, 82d ABN, FT BRAGG, NC	IN	6	AA	258	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHC, 82d ABN DIV, FT BRAGG, NC	IN	22	AA	946	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	4th BN 6th INF, FT POLK, LA	IN	726	AA	31,218	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	3 BN, 505th INF, 82d ABN, FT BRAGG, NC	IN	145	AA	6,235	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	4th BN, 325 INF, 82d ABN, FT BRAGG, NC	IN	424	AA	18,232	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHC, XVIII ABN CORPS, FT BRAGG, NC	IN	103	AA	4,429	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	2d BN, 9th INF, 7 ID, FT ORD, CA	IN	470	AA	20,210	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	3d BN, 9th IN, 7 ID, FT ORD, CA	IN	461	AA	19,823	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	5th BN, 21th INF, 7 ID, FT ORD, CA	IN	446	AA	19,178	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	1st BN, 9th INF, 7 ID, 82d ABN, FT ORD, CA	IN	460	AA	19,780	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	2d BN, 504th INF, 82d ABN, FT BRAGG, NC	IN	521	AA	22,403	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHC, 3d BDG, 7 ID, FT ORD, CA	IN	46	AA	1,978	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	1st BN, 504th INF, 82d ABN, FT BRAGG, NC	IN	521	AA	22,403	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	4th BN, 17 INF, 7 ID, FT ORD, CA	IN	726	AA	31,218	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHC, 8th REGT, 7 ID, FT ORD, CA	IN	81	AA	3,483	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHC, 1st BDE, 82d ABN, FT BRAGG, NC	IN	22	AA	946	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	3d BN, 27th INF, 7 ID, FT ORD, CA	IN	480	AA	20,640	89-12-20	90-01-31	9	INT	

JUST CAUSE PANAMA	43	HHC, 7 ID, FT ORD, CA	IN	127	AA	5,461	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	2d BN, 27th INF, 7 ID, FT ORD, CA	IN	475	AA	20,425	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	C CO, 707th MAINT 8N, 717, FT ORD, CA	MAINT		AA	0	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	189th MAINT CO, 1 COSCOM, FT BRAGG, NC	MAINT	1	AA	43	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHD 189th MAINT BN, FT ORD, CA	MAINT		AA	0	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	A CO 707th MAINT BN, 7 ID, FT ORD, CA	MAINT		AA	0	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	58th LEM, 1 COSCOM, FT BRAGG, NC	MAINT	10	AA	430	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	B CO., 707th MAINT BN, 7 ID, FT ORD, CA	MAINT		AA	0	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	503d MAINT CO, 1 COSCOM, FT BRAGG, NC	MAINT	12	AA	516	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	659th MAINT CO, 1 COSCOM, FT BRAGG, NC	MAINT	5	AA	215	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	782d MAINT 8N, 82d ABN, FT BRAGG, NC	MAINT	30	AA	1,290	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	A CO 7th MS CO, 7 ID, FT ORD, CA	MS		AA	0	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	C CO., 7th MS CO, 7 ID, FT ORD, CA	MS		AA	0	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	7th MS BN, 1 COSCOM, FT BRAGG, NC	MS	7	AA	301	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	714th MS DET, 1 COSCOM, FT BRAGG, NC	MS	1	AA	43	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	32d MS SUM, 1 COSCOM, FT BRAGG, NC	MS	13	AA	559	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	307th MS BN, 82d ABN, FT BRAGG, NC	MS	22	AA	946	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	36th MS CO, 1 COSCOM, FT BRAGG, NC	MS	40	AA	1,720	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	5th MASH, 1 COSCOM, FT BRAGG, NC	MS	13	AA	559	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	28th CBT SPT HOSP, 1 COSCOM, FT BRAGG, NC	MS	2	AA	86	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	257th MS DET, 1 COSCOM, FT BRAGG, NC	MS	2	AA	86	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	57th MS DET, 1 COSCOM, FT BRAGG, NC	MS	13	AA	559	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	B CO., 7th MS BN, 7 ID, FT ORD, CA	MS		AA	0	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHC, 44 MS BDE, 1 COSCOM, FT BRAGG, NC	MS	17	AA	731	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	313 MI BN, 82d ABN, FT BRAGG, NC	MI	34	AA	1,462	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	107th MI BN, 7 ID, FT ORD, CA	MI	111	AA	4,773	89-12-20	90-01-31	9	INT	

JUST CAUSE PANAMA	43	525th MI BDE, FT BRAGG, NC	MI	185	AA	7,955	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	209th MP BN, FT MEADE, MD	MP	115	AA	4,945	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	519th MP BN, FT MEADE, MD	MP	43	AA	1,849	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	7th MP CO, 7 ID, FT ORD, CA	MP	88	AA	3,784	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	555th MP CO, FT LEE, VA	MP	120	AA	5,160	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	503d MP BN, FT BRAGG, NC	MP	45	AA	1,935	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	511th MP BN, FT DRUM, NY	MP	112	AA	4,816	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHC, 16th MP BDE, FT BRAGG, NC	MP	60	AA	2,580	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	988th MP BN, FT BENNING, GA	MP	110	AA	4,730	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	401st MP BN, FT HOOD, TX	MP	135	AA	5,805	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	82d MP CO, 82d ABN, FT BRAGG, NC	MP	71	AA	3,053	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	108th MP CO, FT BRAGG, NC	MP	115	AA	4,945	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	21st MP CO, FT BRAGG, NC	MP	105	AA	4,515	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	65th MP CO, FT BRAGG, NC	MP	101	AA	4,343	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	8th ORD CO, 1 COSCOM, FT BRAGG, NC	OD	31	AA	1,333	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	11th PAO, FT POLK, LA	PA	11	AA	473	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	18th QM PLT, 1 COSCOM, FT BRAGG, NC	QM	9	AA	387	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	612th QM CO, 1 COSCOM, FT BRAGG, NC	QM	6	AA	258	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	35th SIG BDE, FT BRAGG, NC	SC	155	AA	6,665	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	82d SIG BN, 82d ABN, FT BRAGG, NC	SC	29	AA	1,247	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	127th SIG BN, 7 ID, FT ORD, CA	SC	108	AA	4,644	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	403d TRANS CO, 1 COSCOM, FT BRAGG, NC	TC	39	AA	1,677	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	HHD, 7th TRANS BN, 1 COSCOM, FT BRAGG, NC	TC	2	AA	86	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	546th TRANS CO, 1 COSCOM, FT BRAGG, NC	TC	36	AA	1,548	89-12-20	90-01-31	9	INT	
JUST CAUSE PANAMA	43	126th TRANS CO, 1 COSCOM, FT BRAGG, NC	TC	30	AA	1,290	89-12-20	90-01-31	9	INT	
Total				10,566		454,338					

Table D-4. Multinational Force

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
MULTINATIONAL FORCE	185	1 COSCOM, FT BRAGG, NC	CSS	356	AA	65,860	82-03-01	82-09-01	11	IP	CAA spreadsheet short 1 person-day, no explanation as rounding error unlikely and CAA report text description corrects for this error. Counted as a corrected error.
MULTINATIONAL FORCE	185	1 COSCOM, FT BRAGG, NC	CSS	356	AA	65,860	84-07-01	85-01-01	11	IP	CAA spreadsheet short 1 person-day, no explanation as rounding error unlikely and CAA report text description corrects for this error. Counted as a corrected error.
MULTINATIONAL FORCE	123	1 COSCOM, FT BRAGG, NC	CSS	356	AA	43,788	82-09-01	83-01-01	11	IP	CAA spreadsheet short 1 person-day, no explanation as rounding error unlikely and CAA report text description corrects for this error. Counted as a corrected error.
MULTINATIONAL FORCE	183	1 COSCOM, FT BRAGG, NC	CSS	356	AA	65,148	84-01-01	84-07-01	11	IP	CAA spreadsheet short 1 person-day, no explanation as rounding error unlikely and CAA report text description corrects for this error. Counted as a corrected error.
MULTINATIONAL FORCE	182	1 COSCOM, FT BRAGG, NC	CSS	356	AA	64,792	85-01-01	85-07-01	11	IP	CAA spreadsheet short 1 person-day, no explanation as rounding error unlikely and CAA report text description corrects for this error. Counted as a corrected error.
MULTINATIONAL FORCE	154	1 COSCOM, FT BRAGG, NC	CSS	356	AA	54,824	85-07-01	85-12-01	11	IP	CAA spreadsheet short 1 person-day, no explanation as rounding error unlikely and CAA report text description corrects for this error. Counted as a corrected error.
MULTINATIONAL FORCE	185	1 COSCOM, FT BRAGG, NC	CSS	356	AA	65,860	83-07-01	84-01-01	11	IP	CAA spreadsheet short 1 person-day, no explanation as rounding error unlikely and CAA report text description corrects for this error. Counted as a corrected error.
MULTINATIONAL FORCE	182	1 COSCOM, FT BRAGG, NC	CSS	356	AA	64,792	83-01-01	83-07-01	11	IP	CAA spreadsheet short 1 person-day, no explanation as rounding error unlikely and CAA report text description corrects for this error. Counted as a corrected error.
MULTINATIONAL FORCE	122	1 COSCOM, FT BRAGG, NC	CSS	356	AA	43,432	85-12-01	86-04-01	11	IP	CAA spreadsheet short 1 person-day, no explanation as rounding error unlikely and CAA report text description corrects for this error. Counted as a corrected error.
MULTINATIONAL FORCE	185	2-327 INF, 101st AA, FT CAMPBELL, KY	IN	1,000	AA	185,000	83-07-01	84-01-01	11	IP	
MULTINATIONAL FORCE	185	4-187 INF, 101st AA, FT CAMPBELL, KY	IN	1,000	AA	185,000	84-07-01	85-01-01	11	IP	
MULTINATIONAL FORCE	182	3-327 INF, 101st AA, FT CAMPBELL, KY	IN	549	AA	99,918	86-11-01	87-05-01	11	IP	Changing unit strength to 587 yields CAA spreadsheet figure for person-days but unable to determine if unit strength or the person-days calculation is in error. Counted as an uncorrected error.
MULTINATIONAL FORCE	185	5-21 INF, 7th ID, FT ORD, CA	IN	549	AA	101,565	87-05-01	87-11-01	11	IP	Changing unit strength to 587 yields CAA spreadsheet figure for person-days but unable to determine if unit strength or the person-days calculation is in error. Counted as an uncorrected error.
MULTINATIONAL FORCE	182	2-508 INF, 82d ABN, FT BRAGG, NC	IN	1,000	AA	182,000	83-01-01	83-07-01	11	IP	
MULTINATIONAL FORCE	185	1-505 INF, 82d ABN, FT BRAGG, NC	IN	808	AA	149,480	82-03-01	82-09-01	11	IP	Changing unit strength to 1,000 yields CAA spreadsheet figure for person-days but unable to determine if unit strength or the person-days calculation is in error. Counted as an uncorrected error.

MULTINATIONAL FORCE	185	3-9th INF, 7 ID, FT ORD, CA	IN	549	AA	101,565	89-03-01	89-09-01	11	IP	Changing unit strength to 587 yields CAA spreadsheet figure for person-days but unable to determine if unit strength or the person-days calculation is in error. Counted as an uncorrected error.
MULTINATIONAL FORCE	183	1-325 INF, 82d ABN, FT BRAGG, NC	IN	1,000	AA	183,000	84-01-01	84-07-01	11	IP	
MULTINATIONAL FORCE	154	3-502 INF, 101st AA, FT CAMPBELL, KY	IN	1,000	AA	154,000	85-07-01	85-12-01	11	IP	
MULTINATIONAL FORCE	182	2-505th INF, 82d ABN, FT BRAGG, NC	IN	549	AA	99,918	89-09-01	90-03-01	11	IP	Changing unit strength to 587 yields CAA spreadsheet figure for person-days but unable to determine if unit strength or the person-days calculation is in error. Counted as an uncorrected error.
MULTINATIONAL FORCE	122	3-60 INF, 9th ID, FT LEWIS, WA	IN	587	AA	71,614	85-12-01	86-04-01	11	IP	
MULTINATIONAL FORCE	123	1-502 INF, 101st AA, FT CAMPBELL, KY	IN	1,000	AA	123,000	82-09-01	83-01-01	11	IP	
MULTINATIONAL FORCE	152	1-187th INF, 101st AA, FT CAMPBELL, KY	IN	549	AA	83,448	88-10-01	89-03-01	11	IP	Changing unit strength to 587 yields CAA spreadsheet figure for person-days but unable to determine if unit strength or the person-days calculation is in error. Counted as an uncorrected error.
MULTINATIONAL FORCE	153	2-325th INF, 82d ABN, FT BRAGG, NC	IN	549	AA	83,997	87-11-01	88-04-01	11	IP	Changing unit strength to 587 yields CAA spreadsheet figure for person-days but unable to determine if unit strength or the person-days calculation is in error. Counted as an uncorrected error.
MULTINATIONAL FORCE	184	3-47th INF, 9 ID, FT LEWIS, WA	IN	549	AA	101,016	88-04-01	88-10-01	11	IP	Changing unit strength to 587 yields CAA spreadsheet figure for person-days but unable to determine if unit strength or the person-days calculation is in error. Counted as an uncorrected error.
MULTINATIONAL FORCE	215	2-504 INF, 82d ABN, FT BRAGG, NC	IN	549	AA	118,035	86-04-01	86-11-01	11	IP	Changing unit strength to 587 yields CAA spreadsheet figure for person-days but unable to determine if unit strength or the person-days calculation is in error. Counted as an uncorrected error.
MULTINATIONAL FORCE	182	1-504 INF, 82d ABN, FT BRAGG, NC	IN	1,000	AA	182,000	85-01-01	85-07-01	11	IP	
Total				15,991		2,738,912					CAA report text indicates Inf Bn unit strength of 549 but in order for the person-days to equal CAA spreadsheet total this strength must be raised to 587 per Bn, with the exception of one Bn which has 1,000 personnel; spreadsheet or report wrong?

Table D-5. Golden Pheasant, Honduras

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
GOLDEN PHEASANT HONDURAS	15	DET, 3-73rd AT, FT BRAGG, NC	AV	23	AA	345	88-03-17	88-03-31	8	LCR	
GOLDEN PHEASANT HONDURAS	15	DET, 1-17th CAV, FT BRAGG, NC	CAV	66	AA	990	88-03-17	88-03-31	8	LCR	
GOLDEN PHEASANT HONDURAS	15	B BTRY, 6-8th FA BN, FR ORD, CA	FA	130	AA	1,950	88-03-17	88-03-31	8	LCR	

GOLDEN PHEASANT HONDURAS	15	3-319th FA BN, 82d ABN, FT BRAGG, NC	FA	106	AA	1,590	88-03-17	88-03-31	8	LCR	
GOLDEN PHEASANT HONDURAS	15	3-27th INF BN, 7th ID, FT ORD, CA	IN	609	AA	9,135	88-03-17	88-03-31	8	LCR	
GOLDEN PHEASANT HONDURAS	15	1-504th INF BN, 82d ABN, FT BRAGG, NC	IN	643	AA	9,645	88-03-17	88-03-31	8	LCR	
GOLDEN PHEASANT HONDURAS	15	2-504th INF BN, 82d ABN, FT BRAGG, NC	IN	662	AA	9,930	88-03-17	88-03-31	8	LCR	
GOLDEN PHEASANT HONDURAS	15	2-27th INF BN, 7 TH ID, FT ORD, CA	IN	582	AA	8,730	88-03-17	88-03-31	8	LCR	
GOLDEN PHEASANT HONDURAS	15	HHC, XVIII ABN CORPS, FT BRAGG, NC	IN	44	AA	660	88-03-17	88-03-31	8	LCR	
GOLDEN PHEASANT HONDURAS	15	ASSAULT CP, HQ 82d ABN DIV, FT BRAGG, NC	IN	94	AA	1,410	88-03-17	88-03-31	8	LCR	
GOLDEN PHEASANT HONDURAS	15	1-BDE, 82d ABN, FT BRAGG, NC	IN	210	AA	3,150	88-03-17	88-03-31	8	LCR	
Total				3,169		47,535					

Table D-6. MP ODT, Philippines

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
MP ODT PHILIPPINES	15	351 CA CO CA	CA	50	AR	750	86-12-07	86-12-21	2	SCR	
MP ODT PHILIPPINES	16	411 ENG BN HI	EN	177	AR	2,832	88-03-05	88-03-20	2	SCR	
MP ODT PHILIPPINES	16	411 ENG BN HI	EN	160	AR	2,560	88-03-19	88-04-03	2	SCR	
MP ODT PHILIPPINES	21	130 IN BN IL	IN	80	NG	1,680	88-04-09	88-04-29	2	SCR	
MP ODT PHILIPPINES	21	28 IN BN PA	IN	72	NG	1,512	88-01-30	88-02-19	2	SCR	
MP ODT PHILIPPINES	21	130 IN BN IL	IN	80	NG	1,680	88-03-26	88-04-15	2	SCR	
MP ODT PHILIPPINES	30	130 IN BN IL	IN	80	NG	2,400	88-03-12	88-04-10	2	SCR	
MP ODT PHILIPPINES	14	130 IN BN IL	IN	80	NG	1,120	87-11-07	87-11-20	2	SCR	
MP ODT PHILIPPINES	21	810 MP CO FL	MP	68	AR	1,428	87-01-31	87-02-20	2	SCR	
MP ODT PHILIPPINES	21	805 MP CO NC	MP	68	AR	1,428	87-02-28	87-03-20	2	SCR	
MP ODT PHILIPPINES	15	339 MP CO IL	MP	96	AR	1,440	89-03-04	89-03-18	2	SCR	
MP ODT PHILIPPINES	22	822 MP CO IL	MP	96	AR	2,112	89-11-18	89-12-09	2	SCR	
MP ODT PHILIPPINES	21	341 MP CO CA	MP	68	AR	1,428	87-04-11	87-05-01	2	SCR	
MP ODT PHILIPPINES	21	348 MP CO CA	MP	54	AR	1,134	87-03-28	87-04-17	2	SCR	
MP ODT PHILIPPINES	12	814 MP CO IL	MP	96	AR	1,152	89-02-04	89-02-15	2	SCR	
MP ODT PHILIPPINES	22	447 MP CO OH	MP	96	AR	2,112	89-10-21	89-11-11	2	SCR	
MP ODT PHILIPPINES	21	438 MP CO AZ	MP	12	AR	252	87-03-28	87-04-17	2	SCR	
MP ODT PHILIPPINES	15	805 MP CO NC	MP	68	AR	1,020	87-02-14	87-02-28	2	SCR	
MP ODT PHILIPPINES	22	213 MP CO NC	MP	96	NG	2,112	89-01-21	89-02-11	2	SCR	
MP ODT PHILIPPINES	19	200 MP CO MD	MP	96	NG	1,824	89-11-07	89-11-25	2	SCR	
MP ODT PHILIPPINES	21	855 MP CO AZ	MP	72	NG	1,512	87-10-24	87-11-13	2	SCR	
MP ODT PHILIPPINES	23	229 MP CO VA	MP	96	NG	2,208	89-02-18	89-03-12	2	SCR	
MP ODT PHILIPPINES	14	970 MP CO CO	MP	96	NG	1,344	89-10-07	89-10-20	2	SCR	

MP ODT PHILIPPINES	22	210 MP CO NC	MP	68	NG	1,496	86-11-11	86-12-02	2	SCR	
MP ODT PHILIPPINES	24	217 MP CO AL	MP	68	NG	1,632	87-04-25	87-05-18	2	SCR	
MP ODT PHILIPPINES	22	351 MP CO FL	MP	68	NG	1,496	87-01-17	87-02-07	2	SCR	
MP ODT PHILIPPINES	8	217 MP CO AL	MP	68	NG	544	87-01-03	87-01-10	2	SCR	
MP ODT PHILIPPINES	21	223 MP CO KY	MP	72	NG	1,512	87-09-26	87-10-16	2	SCR	
MP ODT PHILIPPINES	16	210 MP CO NC	MP	68	NG	1,088	86-12-08	86-12-23	2	SCR	
MP ODT PHILIPPINES	22	217 MP CO AL	MP	68	NG	1,496	86-11-25	86-12-16	2	SCR	
Total				2,437		46,304					CAA report text disagrees with CAA spreadsheet total by 500 person-days in the NG component, based on the %'s in the report text I believe that the spreadsheet is correct and the accurate total when using CAA duration calculations is 43,867 not 44,367

Table D-7. MP ODT, Panama

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
MP ODT PANAMA	15	222 PA CO CA	CA	29	AR	435	87-01-31	87-02-14	2	SCR	
MP ODT PANAMA	17	769 ENG BN LA	EN	52	NG	884	89-01-27	89-02-12	2	SCR	
MP ODT PANAMA	16	115 ENG CO UT	EN	35	NG	560	88-06-03	88-06-18	2	SCR	
MP ODT PANAMA	16	1249 ENG BN OR	EN	35	NG	560	88-05-20	88-06-04	2	SCR	
MP ODT PANAMA	16	1457 ENG BN UT	EN	35	NG	560	88-06-03	88-06-18	2	SCR	
MP ODT PANAMA	16	115 ENG CO UT	EN	57	NG	912	88-05-06	88-05-21	2	SCR	
MP ODT PANAMA	11	265 ENG CO GA	EN	45	NG	495	86-10-25	86-11-04	2	SCR	
MP ODT PANAMA	17	527 ENG BN LA	EN	52	NG	884	89-02-24	89-03-12	2	SCR	
MP ODT PANAMA	16	265 ENG CO GA	EN	45	NG	720	86-10-11	86-10-26	2	SCR	
MP ODT PANAMA	17	528 ENG BN LA	EN	52	NG	884	89-01-13	89-01-29	2	SCR	
MP ODT PANAMA	17	205 ENG CO LA	EN	52	NG	884	89-02-10	89-02-26	2	SCR	
MP ODT PANAMA	15	529 ENG BN LA	EN	52	NG	780	89-03-11	89-03-25	2	SCR	
MP ODT PANAMA	13	265 ENG CO GA	EN	25	NG	325	86-10-17	86-10-29	2	SCR	

MP ODT PANAMA	21	87 IN BN CO	IN	501	AR	10,521	87-08-08	87-08-28	2	SCR	
MP ODT PANAMA	15	29 IN BN VA	IN	650	NG	9,750	89-07-01	89-07-15	2	SCR	
MP ODT PANAMA	14	373 MS DET MA	MS	21	AR	294	89-10-15	89-10-28	2	SCR	
MP ODT PANAMA	13	819 MS CO CT	MS	11	AR	143	89-02-05	89-02-17	2	SCR	
MP ODT PANAMA	15	404 MS DET AR	MS	63	AR	945	87-03-12	87-03-26	2	SCR	
MP ODT PANAMA	15	858 MS HSP CA	MS	28	AR	420	88-07-09	88-07-23	2	SCR	
MP ODT PANAMA	15	145 MS CO OK	MS	53	NG	795	87-11-05	87-11-19	2	SCR	
MP ODT PANAMA	15	927 MS CO FL	MS	55	NG	825	88-09-03	88-09-17	2	SCR	
MP ODT PANAMA	15	159 MS HOSP LA	MS	55	NG	825	88-01-07	88-01-21	2	SCR	
MP ODT PANAMA	14	159 MS HSP LA	MS	63	NG	882	87-07-23	87-08-05	2	SCR	
MP ODT PANAMA	15	245 MS CO OK	MS	40	NG	600	89-05-11	89-05-25	2	SCR	
MP ODT PANAMA	15	245 MS CO OK	MS	40	NG	600	89-05-11	89-05-25	2	SCR	
MP ODT PANAMA	15	508 MS CO IL	MS	120	NG	1,800	88-06-09	88-06-23	2	SCR	
MP ODT PANAMA	14	144 MS HOSP UT	MS	63	NG	882	87-08-27	87-09-09	2	SCR	
MP ODT PANAMA	15	367 PA DET OH	MH	13	NG	195	89-03-11	89-03-25	2	SCR	
MP ODT PANAMA	14	322 MIL HIST DET AL	MIL H	3	AR	42	89-10-15	89-10-28	2	SCR	
MP ODT PANAMA	15	322 MIL HIST DET AL	MIL H	3	AR	45	89-04-08	89-04-22	2	SCR	
MP ODT PANAMA	15	307 MP CO PA	MP	30	AR	450	87-08-08	87-08-22	2	SCR	
MP ODT PANAMA	13	320 MP CO FL	MP	42	AR	546	88-12-26	89-01-07	2	SCR	
MP ODT PANAMA	15	301 MP CO RI	MP	45	AR	675	88-10-01	88-10-15	2	SCR	
MP ODT PANAMA	15	445 MP CO OK	MP	45	NG	675	88-10-29	88-11-12	2	SCR	
MP ODT PANAMA	34	114 MP CO MS	MP	44	NG	1,496	89-03-27	89-04-29	2	SCR	
MP ODT PANAMA	15	45 MP DET OK	MP	55	NG	825	88-04-02	88-04-16	2	SCR	
MP ODT PANAMA	46	220 MP CO CO	MP	38	NG	1,748	89-08-02	89-09-16	2	SCR	
MP ODT PANAMA	17	205 MP DET MD	MP	19	NG	323	89-12-21	90-01-06	2	SCR	
MP ODT PANAMA	15	205 MP CO MO	MP	45	NG	675	89-11-11	89-11-25	2	SCR	

MP ODT PANAMA	15	162 MP CO MS	MP	44	NG	660	89-06-24	89-07-08	2	SCR	
MP ODT PANAMA	44	45 MP DET OK	MP	55	NG	2,420	88-02-19	88-04-02	2	SCR	
MP ODT PANAMA	15	220 MP CO CO	MP	38	NG	570	89-08-05	89-08-19	2	SCR	
MP ODT PANAMA	15	220 MP CO CO	MP	38	NG	570	89-08-19	89-09-02	2	SCR	
MP ODT PANAMA	15	220 MP CO CO	MP	38	NG	570	89-09-16	89-09-30	2	SCR	
MP ODT PANAMA	15	114 MP CO MS	MP	44	NG	660	89-04-01	89-04-15	2	SCR	
MP ODT PANAMA	15	113 MP CO MS	MP	44	NG	660	89-05-13	89-05-27	2	SCR	
MP ODT PANAMA	15	445 MP CO OK	MP	45	NG	675	89-03-18	89-04-01	2	SCR	
MP ODT PANAMA	15	45 MP DET OK	MP	55	NG	825	88-03-05	88-03-19	2	SCR	
MP ODT PANAMA	23	257 MP CO MN	MP	45	NG	1,035	89-02-10	89-03-04	2	SCR	
MP ODT PANAMA	15	205 MP CO MO	MP	45	NG	675	89-10-28	89-11-11	2	SCR	
MP ODT PANAMA	15	162 MP CO MS	MP	44	NG	660	89-07-22	89-08-05	2	SCR	
MP ODT PANAMA	17	51 MP DET SC	MP	48	NG	816	87-10-02	87-10-18	2	SCR	
MP ODT PANAMA	15	223 MP CO KY	MP	46	NG	690	88-01-23	88-02-06	2	SCR	
MP ODT PANAMA	15	114 MP CO MS	MP	44	NG	660	89-04-29	89-05-13	2	SCR	
MP ODT PANAMA	14	205 MP DET MD	MP	45	NG	630	89-10-01	89-10-14	2	SCR	
MP ODT PANAMA	17	51 MP DET SC	MP	48	NG	816	87-10-30	87-11-15	2	SCR	
MP ODT PANAMA	17	51 MP CO SC	MP	44	NG	748	87-11-13	87-11-29	2	SCR	
MP ODT PANAMA	17	445 MP CO OK	MP	45	NG	765	89-03-04	89-03-20	2	SCR	
MP ODT PANAMA	17	51 MP CO SC	MP	52	NG	884	88-01-08	88-01-24	2	SCR	
MP ODT PANAMA	15	257 MP CO MN	MP	45	NG	675	89-02-04	89-02-18	2	SCR	
MP ODT PANAMA	17	101 PA DET DE	PA	13	NG	221	89-10-21	89-11-06	2	SCR	
MP ODT PANAMA	15	223 MP CO KY	MP	46	NG	690	88-02-06	88-02-20	2	SCR	
MP ODT PANAMA	17	51 MP CO SC	MP	43	NG	731	87-11-27	87-12-13	2	SCR	
MP ODT PANAMA	16	51 MP CO SC	MP	49	NG	784	87-12-26	88-01-10	2	SCR	
MP ODT PANAMA	13	257 MP CO MN	MP	45	NG	585	88-12-26	89-01-07	2	SCR	

MP ODT PANAMA	15	205 MP CO MO	MP	45	NG	675	89-10-14	89-10-28	2	SCR	
MP ODT PANAMA	15	257 MP CO MN	MP	45	NG	675	89-01-07	89-01-21	2	SCR	
MP ODT PANAMA	15	113 MP CO MS	MP	44	NG	660	89-06-10	89-06-24	2	SCR	
MP ODT PANAMA	15	358 PA DET UT	PA	13	AR	195	89-04-01	89-04-15	2	SCR	
MP ODT PANAMA	15	340 PA CO NY	PA	29	AR	435	87-02-14	87-02-28	2	SCR	
MP ODT PANAMA	15	222 PA DET CA	PA	27	AR	405	89-02-11	89-02-25	2	SCR	
MP ODT PANAMA	15	345 PA DET TX	PA	13	AR	195	88-05-14	88-05-28	2	SCR	
MP ODT PANAMA	15	203 PA DET KS	PA	13	AR	195	88-03-19	88-04-02	2	SCR	
MP ODT PANAMA	21	209 PA DET GA	PA	29	AR	609	88-06-26	88-07-16	2	SCR	
MP ODT PANAMA	14	340 PA DET NY	PA	29	AR	406	88-04-03	88-04-16	2	SCR	
MP ODT PANAMA	15	209 PA DET GA	PA	29	AR	435	87-06-27	87-07-11	2	SCR	
MP ODT PANAMA	15	120 PA DET IN	PA	13	NG	195	89-05-13	89-05-27	2	SCR	
MP ODT PANAMA	15	128 PA DET UT	PA	13	NG	195	89-02-18	89-03-04	2	SCR	
MP ODT PANAMA	15	70 PA DET MO	PA	13	NG	195	88-12-03	88-12-17	2	SCR	
MP ODT PANAMA	15	382 PA DET NC	PA	13	NG	195	88-01-09	88-01-23	2	SCR	
MP ODT PANAMA	17	117 PA DET HI	PA	13	NG	221	89-11-10	89-11-26	2	SCR	
MP ODT PANAMA	17	102 PA DET MS	PA	13	NG	221	87-06-12	87-06-28	2	SCR	
MP ODT PANAMA	15	136 PA DET NM	PA	13	NG	195	88-04-02	88-04-16	2	SCR	
MP ODT PANAMA	15	343 PA DET AR	PA	13	NG	195	88-04-16	88-04-30	2	SCR	
MP ODT PANAMA	13	125 PA DET MN	PA	13	NG	169	89-12-09	89-12-21	2	SCR	
MP ODT PANAMA	48	121 PA DET ME	PA	13	NG	624	87-07-07	87-08-23	2	SCR	
MP ODT PANAMA	14	222 PA DET CA	PA	24	NG	336	88-02-28	88-03-12	2	SCR	
MP ODT PANAMA	17	134 PA DET AK	PA	13	NG	221	87-09-18	87-10-04	2	SCR	
MP ODT PANAMA	15	108 PA DET SC	PA	12	NG	180	89-06-05	89-06-19	2	SCR	
Total				4,354		73,562					

Table D-8. Task Force Hawk, Panama

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
TASK FORCE HAWK PANAMA	123	AVN UNITS, 7 ID, FT ORD, CA	AV	200	AA	24,600	89-03-01	89-07-01	2	SCR	
TASK FORCE HAWK PANAMA	124	AVN UNITS, 7 ID, FT ORD, CA	AV	200	AA	24,800	89-07-01	89-11-01	2	SCR	
TASK FORCE HAWK PANAMA	121	AVN UNITS, 7 ID, FT ORD, CA	AV	200	AA	24,200	88-11-01	89-03-01	2	SCR	
TASK FORCE HAWK PANAMA	50	AVN UNITS, 7 ID, FT ORD, CA	AV	200	AA	10,000	89-11-01	89-12-20	2	SCR	
TASK FORCE HAWK PANAMA	106	AVN UNITS, 7 ID, FT ORD, CA	AV	200	AA	21,200	88-03-18	88-07-01	2	SCR	
TASK FORCE HAWK PANAMA	124	AVN UNITS, 7 ID, FT ORD, CA	AV	200	AA	24,800	88-07-01	88-11-01	2	SCR	
Total				1,200		129,600					

Table D-9. MP & LOG ASST-Panama

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
MP & LOG ASST-PANAMA	146	96th CA BN, FT BRAGG, NC	CA	5	AA	730	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	659th MS BN, FT BRAGG, NC	MS	2	AA	292	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	429th MS BN, FT BRAGG, NC	MS	3	AA	438	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	49th MS BN, FT BRAGG, NC	MS	12	AA	1,752	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	16th MI, BN, FT BRAGG, NC	MI	30	AA	4,380	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	525th MI BN, FT BRAGG, NC	MI	42	AA	6,132	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	293rd MP CO, FT MEADE, MD	MP	123	AA	17,958	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	108th MP CO, FT BRAGG, NC	MP	137	AA	20,002	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	65th MP CO, FT BRAGG, NC	MP	148	AA	21,608	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	209th MP CO, FT MEADE, MD	MP	128	AA	18,688	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	519th MP BN, FT MEADE, MD	MP	40	AA	5,840	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	118th MP CO, FT BRAGG, NC	MP	141	AA	20,586	88-03-18	88-08-10	2	SCR	

MP & LOG ASST-PANAMA	146	HQ, 16th MP BDE, FT BRAGG, NC	MP	46	AA	6,716	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	503rd MP BN, FT BRAGG, NC	MP	56	AA	8,176	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	503rd MAINT BN, 82d ABN, FT BRAGG, NC	MP	5	AA	730	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	21st MP CO, FT BRAGG, NC	MP	146	AA	21,316	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	112th SIG BN, FT BRAGG, NC	SC	15	AA	2,190	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	870th TRANS CO, FT BRAGG, NC	TC	41	AA	5,986	88-03-18	88-08-10	2	SCR	
MP & LOG ASST-PANAMA	146	259th TRANS CO, FT BRAGG, NC	TC	11	AA	1,606	88-03-18	88-08-10	2	SCR	
Total				1,131		165,126					

Table D-10. MP ASST-Panama

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
MP ASST-PANAMA	121	977th MP CO, FT RILEY, KS	MP	139	AA	16,819	88-12-01	89-04-01	2	SCR	CAA report says that the 89th MP Bde was deployed. Calculated unit strength shows approximately 600+ personnel from the 89th, roughly 1/3 of unit strength; therefore this event was coded as a small crisis response
MP ASST-PANAMA	71	571st MP CO, FT ORD, CA	MP	115	AA	8,165	88-09-21	88-12-01	2	SCR	
MP ASST-PANAMA	44	118th MP CO, FT BRAGG, NC	MP	107	AA	4,708	88-08-08	88-09-21	2	SCR	
MP ASST-PANAMA	44	571st MP CO, FT ORD, CA	MP	111	AA	4,884	88-08-08	88-09-21	2	SCR	
MP ASST-PANAMA	74	988 MP CO, FT BENNING, GA	MP	110	AA	8,140	89-12-15	90-02-27	2	SCR	Entries with end dates of 90-02-27 have hidden fractional duration entries in the CAA spreadsheet. When the whole number of 74 days is used the person-day calculation totals come within one using the CAA duration fomrula. Counts as a corrected error.
MP ASST-PANAMA	74	209th MP CO, FT MEADE, MD	MP	115	AA	8,510	89-12-15	90-02-27	2	SCR	Entries with end dates of 90-02-27 have hidden fractional duration entries in the CAA spreadsheet. When the whole number of 74 days is used the person-day calculation totals come within one using the CAA duration fomrula. Counts as a corrected error.
MP ASST-PANAMA	74	555th MP CO, FT LEE, VA	MP	120	AA	8,880	89-12-15	90-02-27	2	SCR	Entries with end dates of 90-02-27 have hidden fractional duration entries in the CAA spreadsheet. When the whole number of 74 days is used the person-day calculation totals come within one using the CAA duration fomrula. Counts as a corrected error.
MP ASST-PANAMA	44	HQ, 89th MP BDE, FT HOOD, TX	MP	46	AA	2,024	88-08-08	88-09-21	2	SCR	

MP ASST-PANAMA	74	511th MP CO, FT DRUM, NY	MP	112	AA	8,288	89-12-15	90-02-27	2	SCR	Entries with end dates of 90-02-27 have hidden fractional duration entries in the CAA spreadsheet. When the whole number of 74 days is used the person-day calculation totals come within one using the CAA duration fomrula. Counts as a corrected error.
MP ASST-PANAMA	121	978th MP CO, FT BLISS, TX	MP	136	AA	16,456	88-12-01	89-04-01	2	SCR	
MP ASST-PANAMA	121	463d MP CO, FT LEONARD WOOD, MD	MP	146	AA	17,666	88-12-01	89-04-01	2	SCR	
MP ASST-PANAMA	71	984th MP CO, FT CARSON, CO	MP	145	AA	10,295	88-09-21	88-12-01	2	SCR	
MP ASST-PANAMA	121	716th MP BN, FT RILEY, KS	MP	30	AA	3,630	88-12-01	89-04-01	2	SCR	
MP ASST-PANAMA	44	984th MP CO, FT CARSON, CO	MP	140	AA	6,160	88-08-08	88-09-21	2	SCR	
MP ASST-PANAMA	136	170th MP CO, FT LEWIS, WA	MP	131	AA	17,816	89-08-01	89-12-15	2	SCR	
MP ASST-PANAMA	136	401st MP CO, FT HOOD, TX	MP	135	AA	18,360	89-08-01	89-12-15	2	SCR	
MP ASST-PANAMA	136	108th MP CO, FT BRAGG, NC	MP	136	AA	18,496	89-08-01	89-12-15	2	SCR	
MP ASST-PANAMA	74	519th MP BN, FT MEADE, MD	MP	43	AA	3,182	89-12-15	90-02-27	2	SCR	Entries with end dates of 90-02-27 have hidden fractional duration entries in the CAA spreadsheet. When the whole number of 74 days is used the person-day calculation totals come within one using the CAA duration fomrula. Counts as a corrected error.
MP ASST-PANAMA	44	293rd MP CO, FT MEADE, MD	MP	133	AA	5,852	88-08-08	88-09-21	2	SCR	
MP ASST-PANAMA	44	209th MP CO, FT MEADE, MD	MP	135	AA	5,940	88-08-08	88-09-21	2	SCR	
MP ASST-PANAMA	44	519th MP BN, FT MEADE, MD	MP	43	AA	1,892	88-08-08	88-09-21	2	SCR	
MP ASST-PANAMA	44	410th MP CO, FT HOOD, TX	MP	145	AA	6,380	88-08-08	88-09-21	2	SCR	
MP ASST-PANAMA	122	437th MP CO, FT BELVOIR, VA	MP	126	AA	15,372	89-04-01	89-08-01	2	SCR	
MP ASST-PANAMA	136	504th MP BN, FT LEWIS, WA	MP	43	AA	5,848	89-08-01	89-12-15	2	SCR	
MP ASST-PANAMA	71	410th H MP CO, FT HOOD, TX	MP	145	AA	10,295	88-09-21	88-12-01	2	SCR	
MP ASST-PANAMA	71	759th MP BN, FT CARSON, CO	MP	37	AA	2,627	88-09-21	88-12-01	2	SCR	
MP ASST-PANAMA	122	65th MP CO, FT BRAGG, NC	MP	152	AA	18,544	89-04-01	89-08-01	2	SCR	
MP ASST-PANAMA	122	411th MP CO, FT HOOD, TX	MP	131	AA	15,982	89-04-01	89-08-01	2	SCR	
MP ASST-PANAMA	122	720th MP BN, FT HOOD, TX	MP	46	AA	5,612	89-04-01	89-08-01	2	SCR	
MP ASST-PANAMA	44	759th MP BN, FT CARSON, CO	MP	46	AA	2,024	88-08-08	88-09-21	2	SCR	
Total				3,199		278,847					

Table D-11. NIMROD DANCER II

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
NIMROD DANCER	223	HHC, 9th RGT, 7 ID, FT ORD, CA	IN	81	AA	18,063	89-05-12	89-12-20	2	SCR	
NIMROD DANCER	223	2nd BN, 9th INF, 7 ID, FT ORD, CA	IN	360	AA	80,280	89-05-12	89-12-20	2	SCR	
NIMROD DANCER	223	4th BN, 16th INF, 5 ID, FT POLK, LA	IN	726	AA	161,898	89-05-12	89-12-20	2	SCR	
NIMROD DANCER	223	1st BN, 9th INF, 7 ID, FT ORD, CA	IN	380	AA	84,740	89-05-12	89-12-20	2	SCR	
Total				1,547		344,981					

Table D-12. JTF BRAVO, Honduras

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
JTF BRAVO HONDURAS	121	196th AVN CO, FT BRAGG, NC	AV	27	AA	3,267	86-11-01	87-03-01	2	SCR	
JTF BRAVO HONDURAS	110	1st AVN BN, 1 ID, FT RILEY, KS	AV	194	AA	21,340	84-11-12	85-03-01	2	SCR	
JTF BRAVO HONDURAS	110	4th AVN BN, 4 ID, FT CARSON, CO	AV	31	AA	3,410	84-11-12	85-03-01	2	SCR	
JTF BRAVO HONDURAS	121	502d AVN, BN, 2 AD, FT HOOD, TX	AV	196	AA	23,716	85-11-01	86-03-01	2	SCR	
JTF BRAVO HONDURAS	123	210th ABN BN, 193rd INF BDE, PM	AV	27	AA	3,321	85-03-01	85-07-01	2	SCR	
JTF BRAVO HONDURAS	124	AVN BDE, 101st AA, FT CAMPBELL, KY	AV	225	AA	27,900	88-07-01	88-11-01	2	SCR	
JTF BRAVO HONDURAS	123	159th AVN BN, 101 AAD, FT CAMPBELL, KY	AV	29	AA	3,567	86-03-01	86-07-01	2	SCR	
JTF BRAVO HONDURAS	121	159th AVN BN, 101 AAD, FT CAMPBELL, KY	AV	31	AA	3,751	85-11-01	86-03-01	2	SCR	
JTF BRAVO HONDURAS	123	7th BN, 101st AVN, FT CAMPBELL, KY	AV	196	AA	24,108	87-03-01	87-07-01	2	SCR	
JTF BRAVO HONDURAS	123	24th AVN BN, 24 ID, FT STEWART, GA	AV	198	AA	24,354	86-03-01	86-07-01	2	SCR	
JTF BRAVO HONDURAS	124	CO B, 132ND AVN BN, FT STEWART, GA	AV	39	AA	4,836	87-07-01	87-11-01	2	SCR	
JTF BRAVO HONDURAS	122	CO B, 1st BN, 159TH AVN, FT BRAGG, NC	AV	110	AA	13,420	87-11-01	88-03-01	2	SCR	
JTF BRAVO HONDURAS	121	1 BN, 159 AVN, FT BRAGG, NC	AV	225	AA	27,225	88-11-01	89-03-01	2	SCR	
JTF BRAVO HONDURAS	124	CO D, 24th AVN BDE, FT STEWART, GA	AV	120	AA	14,880	87-07-01	87-11-01	2	SCR	

JTF BRAVO HONDURAS	124	1st AVN, BN, 1 ID, FT RILEY, KS	AV	194	AA	24,056	86-07-01	86-11-01	2	SCR	
JTF BRAVO HONDURAS	124	4th AVN BN, 4 ID, FT CARSON, CO	AV	186	AA	23,064	85-07-01	85-11-01	2	SCR	
JTF BRAVO HONDURAS	123	AVN BDE, 101st AA, FT CAMPBELL, KY	AV	225	AA	27,675	89-03-01	89-07-01	2	SCR	
JTF BRAVO HONDURAS	123	CO C, 214 AVN BN, FT LEWIS, WA	AV	31	AA	3,813	88-03-01	88-07-01	2	SCR	
JTF BRAVO HONDURAS	123	2 BN, 9th AVN, 9 ID, FT LEWIS, WA	AV	212	AA	26,076	88-03-01	88-07-01	2	SCR	
JTF BRAVO HONDURAS	124	132d AVN CO, 24 ID, FT STEWART, GA	AV	31	AA	3,844	86-07-01	86-11-01	2	SCR	
JTF BRAVO HONDURAS	124	CO C, 214 AVN BN, FT LEWIS, WA	AV	27	AA	3,348	89-07-01	89-11-01	2	SCR	
JTF BRAVO HONDURAS	121	19th AVN SPT CO, 1 CAV DIV, FT HOOD, TX	AV	196	AA	23,716	86-11-01	87-03-01	2	SCR	
JTF BRAVO HONDURAS	124	2 BN, 9th AVN, 9 ID, FT LEWIS, WA	AV	183	AA	22,692	89-07-01	89-11-01	2	SCR	
JTF BRAVO HONDURAS	124	6th CAV BDE, FT HOOD, TX	CAV	31	AA	3,844	85-07-01	85-11-01	2	SCR	
JTF BRAVO HONDURAS	123	24th CAV, 24 ID, FT STEWART, GA	CAV	177	AA	21,771	85-03-01	85-07-01	2	SCR	
JTF BRAVO HONDURAS	183	92nd ENG BN, FT STEWART, GA	EN	50	AA	9,150	89-04-01	89-09-30	2	SCR	
JTF BRAVO HONDURAS	182	864th ENG BN, FT LEWIS, WA	EN	50	AA	9,100	89-10-01	90-03-31	2	SCR	
JTF BRAVO HONDURAS	183	34th ENG BN, FT BENNING, GA	EN	150	AA	27,450	87-10-01	88-03-31	2	SCR	
JTF BRAVO HONDURAS	183	11th ENG BN, FT BELVOIR, VA	EN	150	AA	27,450	86-04-01	86-09-30	2	SCR	
JTF BRAVO HONDURAS	183	43rd ENG BN, FT BENNING, GA	EN	150	AA	27,450	87-04-01	87-09-30	2	SCR	
JTF BRAVO HONDURAS	182	864th ENG BN, FT LEWIS, WA	EN	100	AA	18,200	88-10-01	89-03-31	2	SCR	
JTF BRAVO HONDURAS	183	46th ENG BN, FT RUCKER, AL	EN	150	AA	27,450	88-04-01	88-09-30	2	SCR	
JTF BRAVO HONDURAS	182	864th ENG BN, FT LEWIS, WA	EN	150	AA	27,300	86-10-01	87-03-31	2	SCR	
JTF BRAVO HONDURAS	91	43rd ENG BN, FT BENNING, GA	EN	50	AA	4,550	90-04-01	90-06-30	2	SCR	
JTF BRAVO HONDURAS	124	498th MS CO, FT LEWIS, WA	MS	13	AA	1,612	89-07-01	89-11-01	2	SCR	
JTF BRAVO HONDURAS	123	498th MS CO, FT LEWIS, WA	MS	13	AA	1,599	88-03-01	88-07-01	2	SCR	
JTF BRAVO HONDURAS	123	224th MI BN, FT STEWART, GA	MI	50	AA	6,150			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	123	224th MI BN, FT STEWART, GA	MI	50	AA	6,150			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	121	224th MI BN, FT STEWART, GA	MI	50	AA	6,050			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	124	224th MI BN, FT STEWART, GA	MI	50	AA	6,200			2	SCR	Dates data missing - counted as two uncorrected errors

JTF BRAVO HONDURAS	121	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,150			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	121	224th MI BN, FT STEWART, GA	MI	50	AA	6,050			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	121	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,150			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	110	224th MI BN, FT STEWART, GA	MI	50	AA	5,500			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	124	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,600			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	123	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,450			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	121	224th MI BN, FT STEWART, GA	MI	50	AA	6,050			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	110	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	16,500			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	123	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,450			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	124	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,600			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	121	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,150			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	121	224th MI BN, FT STEWART, GA	MI	50	AA	6,050			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	124	224th MI BN, FT STEWART, GA	MI	50	AA	6,200			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	124	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,600			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	121	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,150			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	123	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,450			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	123	224th MI BN, FT STEWART, GA	MI	50	AA	6,150			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	124	224th MI BN, FT STEWART, GA	MI	50	AA	6,200			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	121	224th MI BN, FT STEWART, GA	MI	50	AA	6,050			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	123	224th MI BN, FT STEWART, GA	MI	50	AA	6,150			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	124	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,600			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	124	224th MI BN, FT STEWART, GA	MI	50	AA	6,200			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	124	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,600			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	121	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,150			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	124	224th MI BN, FT STEWART, GA	MI	50	AA	6,200			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	123	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,450			2	SCR	Dates data missing - counted as two uncorrected errors

JTF BRAVO HONDURAS	123	224th MI BN, FT STEWART, GA	MI	50	AA	6,150			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	123	513th MI BDE, FT MONMOUTH, NJ	MI	150	AA	18,450			2	SCR	Dates data missing - counted as two uncorrected errors
JTF BRAVO HONDURAS	124	PLT, 571st MP CO, FT ORD, CA	MP	30	AA	3,720	89-07-01	89-11-01	2	SCR	
JTF BRAVO HONDURAS	60	555th MP CO, FT LEE, VA	MP	90	AA	5,400	85-01-01	85-03-01	2	SCR	
JTF BRAVO HONDURAS	122	571st MP CO, FT ORD, CA	MP	125	AA	15,250	87-11-01	88-03-01	2	SCR	
JTF BRAVO HONDURAS	92	21st MP CO, FT BRAGG, NC	MP	110	AA	10,120	85-04-01	85-07-01	2	SCR	
JTF BRAVO HONDURAS	124	PLT, 437th MP CO, FT BELVOIR, VA	MP	30	AA	3,720	87-07-01	87-11-01	2	SCR	
JTF BRAVO HONDURAS	121	PLT, 463d MP CO, FT LEONARD WOOD, MO	MP	30	AA	3,630	86-11-01	87-03-01	2	SCR	
JTF BRAVO HONDURAS	124	977th MP CO, FT RILEY, KS	MP	146	AA	18,104	87-07-01	87-11-01	2	SCR	
JTF BRAVO HONDURAS	124	293d MP CO, FT Geo G. MEADE, MD	MP	125	AA	15,500	86-07-01	86-11-01	2	SCR	
JTF BRAVO HONDURAS	123	984th MP CO, FT CARSON, CO	MP	138	AA	16,974	86-03-01	86-07-01	2	SCR	
JTF BRAVO HONDURAS	122	PLT, 759 MP BN, FT CARSON, CO	MP	30	AA	3,660	87-11-01	88-03-01	2	SCR	
JTF BRAVO HONDURAS	121	65th MP CO, FT BRAGG, NC	MP	160	AA	19,360	86-11-01	87-03-01	2	SCR	
JTF BRAVO HONDURAS	123	978th MP CO, FT BLISS, TX	MP	136	AA	16,728	87-03-01	87-07-01	2	SCR	
JTF BRAVO HONDURAS	123	401st MP CO, FT HOOD, TX	MP	145	AA	17,835	88-03-01	88-07-01	2	SCR	
JTF BRAVO HONDURAS	121	PLT, 463d MP CO, FT LEONARD WOOD, MO	MP	30	AA	3,630	89-11-01	90-03-01	2	SCR	
JTF BRAVO HONDURAS	122	555th MP CO, FT LEE, VA	MP	112	AA	13,664	88-12-01	89-04-01	2	SCR	
JTF BRAVO HONDURAS	123	PLT, 988th MP CO, FT BENNING, GA	MP	30	AA	3,690	88-03-01	88-07-01	2	SCR	
JTF BRAVO HONDURAS	123	108th MP CO, FT BRAGG, NC	MP	121	AA	14,883	89-04-01	89-08-01	2	SCR	
JTF BRAVO HONDURAS	122	978th MP CO, FT BLISS, TX	MP	112	AA	13,664	89-12-01	90-04-01	2	SCR	
JTF BRAVO HONDURAS	123	293d MP CO, FT MEADE, MD	MP	114	AA	14,022	89-08-01	89-12-01	2	SCR	
JTF BRAVO HONDURAS	124	PLT, 170th MP CO, FT LEWIS, WA	MP	30	AA	3,720	88-07-01	88-11-01	2	SCR	
JTF BRAVO HONDURAS	124	988th MP CO, FT BENNING, GA	MP	110	AA	13,640	85-07-01	85-11-01	2	SCR	
JTF BRAVO HONDURAS	123	511th MP CO, FT DRUM, NY	MP	130	AA	15,990	88-08-01	88-12-01	2	SCR	
JTF BRAVO HONDURAS	123	PLT, 988th MP CO, FT BENNING, GA	MP	30	AA	3,690	89-03-01	89-07-01	2	SCR	
JTF BRAVO HONDURAS	121	170th MP CO, FT LEWIS, WA	MP	130	AA	15,730	85-11-01	86-03-01	2	SCR	

JTF BRAVO HONDURAS	121	PLT, 258th MP CO, FT POLK, LA	MP	30	AA	3,630	88-11-01	89-03-01	2	SCR	
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	88-05-01	88-07-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	86-11-01	87-01-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	88-05-01	88-07-01	2	SCR	
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	88-11-01	89-01-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	88-11-01	89-01-01	2	SCR	
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	88-08-01	88-10-01	2	SCR	
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	85-08-01	85-10-01	2	SCR	
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	87-08-01	87-10-01	2	SCR	
JTF BRAVO HONDURAS	60	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,600	90-02-01	90-04-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	88-08-01	88-10-01	2	SCR	
JTF BRAVO HONDURAS	60	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	420	85-02-01	85-04-01	2	SCR	CAA spreadsheet listed 854 person-days, but should read 413 (59 days x 7 personnel) using the CAA duration calculation method, for a difference of 441 person-days. This counts as a corrected error.
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	86-05-01	86-07-01	2	SCR	
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	86-08-01	86-10-01	2	SCR	
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	86-11-01	87-01-01	2	SCR	
JTF BRAVO HONDURAS	60	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,600	87-02-01	87-04-01	2	SCR	
JTF BRAVO HONDURAS	60	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	420	87-02-01	87-04-01	2	SCR	
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	87-11-01	88-01-01	2	SCR	
JTF BRAVO HONDURAS	61	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	427	88-02-01	88-04-01	2	SCR	
JTF BRAVO HONDURAS	60	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,600	89-02-01	89-04-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	86-08-01	86-10-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	85-08-01	85-10-01	2	SCR	
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	86-05-01	86-07-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	87-05-01	87-07-01	2	SCR	
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	89-11-01	90-01-01	2	SCR	

JTF BRAVO HONDURAS	63	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,780	84-12-01	85-02-01	2	SCR	CAA spreadsheet listed 7,260 person-days, but should read 3,720 (62 days x 60 personnel) using the CAA duration calculation method, for a difference of 3,540 person-days. This counts as a corrected error.
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	87-05-01	87-07-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	85-05-01	85-07-01	2	SCR	CAA spreadsheet miscalculated duration as 122 days. Using the CAA duration calculation method it should read 61, which cuts person-days in half to 427 for a difference of 427, This counts as a corrected error.
JTF BRAVO HONDURAS	60	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,600	86-02-01	86-04-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	85-11-01	86-01-01	2	SCR	CAA spreadsheet listed 413 person-days, but should read 427 (61 days x 7 personnel) using the CAA duration calculation method, for a difference of -14 person-days. This counts as a corrected error.
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	89-05-01	89-07-01	2	SCR	
JTF BRAVO HONDURAS	60	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	420	89-02-01	89-04-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	89-08-01	89-10-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	89-05-01	89-07-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	87-11-01	88-01-01	2	SCR	
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	85-11-01	86-01-01	2	SCR	CAA miscalulcated duration as 59 instead of 61 days; spreadsheet listed 3,540 person-days, but should read 3,660 (61 days x 60 personnel) using the CAA duration calculation method, for a difference of -120 person-days. This counts as a corrected error.
JTF BRAVO HONDURAS	60	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	420	86-02-01	86-04-01	2	SCR	
JTF BRAVO HONDURAS	62	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	434	87-08-01	87-10-01	2	SCR	
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	85-05-01	85-07-01	2	SCR	CAA spreadsheet miscalculated duration as 122 days. Using the CAA duration calculation method it should read 61, which cuts person-days in half to 3,660 for a difference of 3,660. This counts as a corrected error.
JTF BRAVO HONDURAS	61	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,660	88-02-01	88-04-01	2	SCR	
JTF BRAVO HONDURAS	63	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	441	84-12-01	85-02-01	2	SCR	CAA spreadsheet listed 847 person-days, but should read 434 (62 days x 7 personnel) using the CAA duration calculation method, for a difference of 413 person-days. This counts as a corrected error.
JTF BRAVO HONDURAS	60	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,600	85-02-01	85-04-01	2	SCR	CAA spreadsheet listed 7,320 person-days, but should read 3,540 (59 days x 60 personnel) using the CAA duration calculation method, for a difference of 3,780 person-days. This counts as a corrected error.
JTF BRAVO HONDURAS	62	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	3,720	89-08-01	89-10-01	2	SCR	
JTF BRAVO HONDURAS	123	11 SIG BDE, FT HUACHUCA, AZ	SC	60	AA	7,380	84-08-01	84-12-01	2	SCR	

JTF BRAVO HONDURAS	123	235th SIG DET, FT HUACHUCA, AZ	SC	7	AA	861	84-08-01	84-12-01	2	SCR	
Total				11,168		1,322,364					When corrected for the errors listed above this figure matches CAA's report description figure of 1,323,323 person-days. Readers are cautioned that the comments use the CAA duration calculation method for checking, vs. the presented IDA duration method.

Table D-13. CABANAS 85

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
CABANAS 85	90	96th CA BN, FT BRAGG, NC	CA	6	AA	540	85-06-03	85-08-31	2	SCR	
CABANAS 85	90	193rd SUP BN, FT CLAYTON, PN	CSS	97	AA	8,730	85-06-03	85-08-31	2	SCR	
CABANAS 85	90	HHC, 36th ENG GP, FT BENNING, GA	EN	87	AA	7,830	85-06-03	85-08-31	2	SCR	
CABANAS 85	90	43d ENG BN, FT BENNING, GA	EN	368	AA	33,120	85-06-03	85-08-31	2	SCR	
CABANAS 85	90	189th MAINT BN, FT BRAGG, NC	MAINT	27	AA	2,430	85-06-03	85-08-31	2	SCR	
CABANAS 85	90	517th MS DET, FT CARSON, CO	MS	32	AA	2,880	85-06-03	85-08-31	2	SCR	
CABANAS 85	90	36th MS BN (AA), FT POLK, LA	MS	24	AA	2,160	85-06-03	85-08-31	2	SCR	
CABANAS 85	90	549th MP CO, FT DAVIS, PN	MMMP	30	AA	2,700	85-06-03	85-08-31	2	SCR	
CABANAS 85	90	109th QM CO, FT LEE, VA	QM	33	AA	2,970	85-06-03	85-08-31	2	SCR	
CABANAS 85	90	259th FLD SVC CO, FT BRAGG, NC	QM	85	AA	7,650	85-06-03	85-08-31	2	SCR	
CABANAS 85	90	12th TRANS CO, FT LEONARD WOOD, MO	TC	35	AA	3,150	85-06-03	85-08-31	2	SCR	
Total				824		74,160					

Table D-14. WORLDWIDE SUPPORT

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
WORLDWIDE SUPPORD	16	329 AG CO MN	AG	31	AR	496	86-11-29	86-12-14	999	Other	
WORLDWIDE SUPPORD	16	320 AG DET OH	AG	27	AR	432	86-11-15	86-11-30	999	Other	
WORLDWIDE SUPPORD	16	341 AG CO GA	AG	27	AR	432	87-02-21	87-03-08	999	Other	

WORLDWIDE SUPPORD	17	379 AG CO WA	AG	27	AR	459	86-11-14	86-11-30	999	Other	
WORLDWIDE SUPPORD	18	245 AV BN OK	AV	48	NG	864	87-04-15	87-05-02	999	Other	
WORLDWIDE SUPPORD	15	245 AV BN OK	AV	65	NG	975	88-05-12	88-05-26	999	Other	
WORLDWIDE SUPPORD	18	245 AV BN OK	AV	65	NG	1,170	88-04-26	88-05-13	999	Other	
WORLDWIDE SUPPORD	19	245 AV BN OK	AV	50	NG	950	87-08-01	87-08-19	999	Other	
WORLDWIDE SUPPORD	18	351 CA CO CA	CA	30	AR	540	86-04-07	86-04-24	999	Other	
WORLDWIDE SUPPORD	23	1134 CSS CO IA	CSS	60	AR	1,380	87-03-07	87-03-29	999	Other	
WORLDWIDE SUPPORD	22	850 CSS CO TX	CSS	93	AR	2,046	89-03-04	89-03-25	999	Other	
WORLDWIDE SUPPORD	15	700 CSS BN OK	CSS	13	NG	195	89-03-11	89-03-25	999	Other	
WORLDWIDE SUPPORD	17	287 ENG DET MA	EN	14	AR	238	89-04-14	89-04-30	999	Other	
WORLDWIDE SUPPORD	17	945 ENG DET ND	EN	30	AR	510	88-09-14	88-09-30	999	Other	
WORLDWIDE SUPPORD	12	945 ENG DET ND	EN	1	AR	12	88-05-06	88-05-17	999	Other	
WORLDWIDE SUPPORD	15	168 ENG BN MS	EN	70	NG	1,050	89-08-12	89-08-26	999	Other	
WORLDWIDE SUPPORD	20	844 ENG BN TN	EN	100	NG	2,000	89-08-02	89-08-21	999	Other	
WORLDWIDE SUPPORD	15	120 ENG BN OK	EN	70	NG	1,050	89-02-25	89-03-11	999	Other	
WORLDWIDE SUPPORD	17	122 ENG BN SC	EN	30	NG	510	88-07-07	88-07-23	999	Other	
WORLDWIDE SUPPORD	19	164 ENG CO ND	EN	24	NG	456	88-01-11	88-01-29	999	Other	
WORLDWIDE SUPPORD	19	164 ENG CO ND	EN	33	NG	627	87-10-18	87-11-05	999	Other	
WORLDWIDE SUPPORD	11	116 FA BN FL	FA	103	NG	1,133	88-07-03	88-07-13	999	Other	
WORLDWIDE SUPPORD	15	123 FA BN IL	FA	120	NG	1,800	88-08-13	88-08-27	999	Other	
WORLDWIDE SUPPORD	15	206 FA BN AR	FA	120	NG	1,800	88-07-02	88-07-16	999	Other	
WORLDWIDE SUPPORD	15	206 FA BN AR	FA	120	NG	1,800	88-07-16	88-07-30	999	Other	
WORLDWIDE SUPPORD	22	183 IN BN VA	IN	150	NG	3,300	87-08-15	87-09-05	999	Other	
WORLDWIDE SUPPORD	15	399 MS HSP MA	MS	28	AR	420	89-08-12	89-08-26	999	Other	
WORLDWIDE SUPPORD	15	455 MS HOSP RI	MS	28	AR	420	89-02-04	89-02-18	999	Other	
WORLDWIDE SUPPORD	22	807 MD CO TX	MS	35	AR	770	87-03-07	87-03-28	999	Other	

WORLDWIDE SUPPORD	15	373 MS HOSP MA	MS	28	AR	420	89-01-07	89-01-21	999	Other	
WORLDWIDE SUPPORD	15	340 MS HOSP CT	MS	28	AR	420	89-04-01	89-04-15	999	Other	
WORLDWIDE SUPPORD	14	217 MS HSP TX	MS	34	NG	476	88-01-02	88-01-15	999	Other	
WORLDWIDE SUPPORD	15	973 MS DET KY	MS	15	NG	225	89-02-04	89-02-18	999	Other	
WORLDWIDE SUPPORD	16	650 MS DET AL	MS	16	NG	256	89-03-03	89-03-18	999	Other	
WORLDWIDE SUPPORD	15	209 MD CO IA	MS	42	NG	630	88-08-04	88-08-18	999	Other	
WORLDWIDE SUPPORD	21	148 MS HOSP AR	MS	40	NG	840	89-01-07	89-01-27	999	Other	
WORLDWIDE SUPPORD	15	730 MS CO SD	MS	36	NG	540	88-04-23	88-05-07	999	Other	
WORLDWIDE SUPPORD	15	828 MS HOSP CA	MS	28	NG	420	88-02-06	88-02-20	999	Other	
WORLDWIDE SUPPORD	15	138 MS CO GA	MS	40	NG	600	88-11-03	88-11-17	999	Other	
WORLDWIDE SUPPORD	22	290 MS DET IN	MS	21	NG	462	89-07-22	89-08-12	999	Other	
WORLDWIDE SUPPORD	16	316 MP DET CA	MP	20	AR	320	87-05-16	87-05-31	999	Other	
WORLDWIDE SUPPORD	15	368 MP CO GA	MP	64	AR	960	88-08-13	88-08-27	999	Other	
WORLDWIDE SUPPORD	15	368 MP CO GA	MP	35	AR	525	87-08-13	87-08-27	999	Other	
WORLDWIDE SUPPORD	25	223 MP CO KY	MP	80	NG	2,000	87-07-22	87-08-15	999	Other	
WORLDWIDE SUPPORD	25	223 MP CO KY	MP	60	NG	1,500	87-07-22	87-08-15	999	Other	
WORLDWIDE SUPPORD	23	479 OD CO MS	OD	142	AR	3,266	87-04-30	87-05-22	999	Other	
WORLDWIDE SUPPORD	22	479 OD CO MS	OD	88	AR	1,936	88-05-04	88-05-25	999	Other	
WORLDWIDE SUPPORD	15	7 POG CA	PSYOP	10	AR	150	86-12-07	86-12-21	999	Other	
WORLDWIDE SUPPORD	22	173 QM CO MS	QM	88	NG	1,936	87-08-08	87-08-29	999	Other	
Total				2,527		45,717					

Table D-15. INDOCHINESE REFUGEE RESETTLEMENT

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
INDOCHINESE REFUGEE RESETT	194	96th CA CO, FT BRAGG, NC	CA	14	AA	2,716	75-04-22	75-11-01	3	HIP	

INDOCHINESE REFUGEE RESETT	194	45th SUP GRP HQ, HAWAII	CSS	655	AA	127,070	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	CO D, 411th ENGR BN (USAR), GUAM	EN	32	AA	6,208	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	1st BN, 5th INF, 25th INF DIV, HAWAII	IN	500	AA	97,000	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	1st BN, 27th INF, 25th INF DIV, HAWAII	IN	419	AA	81,286	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	155th MS DET, FT BRAGG, NC	MS	9	AA	1,746	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	172d MS DET, FT ORD, CA	MS	9	AA	1,746	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	1st MS GRP HHD, FT SAM HOUSTON, TX	MS	50	AA	9,700	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	702d MS CO, FT MEADE, MD	MS	104	AA	20,176	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	423d MS CO, FT LEWIS, WA	MS	138	AA	26,772	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	714th MS DET, FT BRAGG, NC	MS	9	AA	1,746	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	TRIPLER ARMY MS CEN, HAWAII	MS	34	AA	6,596	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	73d MS DET, FT JACKSON, SC	MS	6	AA	1,164	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	515th OD CO, GUAM	OD	130	AA	25,220	75-04-22	75-11-01	3	HIP	
INDOCHINESE REFUGEE RESETT	194	8th PSYOP BN, FT BRAGG, NC	PSYOP	26	AA	5,044	75-04-22	75-11-01	3	HIP	
Total				2,135		414,190					

Table D-16. ENIWETOK CLEANUP

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
ENIWETOK CLEANUP	60	84th ENG BN (PROV), USA SUP COM, HAWAII	EN	327	AA	19,620	80-11-01	80-12-30	5	OHA	
ENIWETOK CLEANUP	124	84th ENG BN (PROV), USA SUP COM, HAWAII	EN	327	AA	40,548	80-07-01	80-11-01	5	OHA	
ENIWETOK CLEANUP	121	84th ENG BN (PROV), USA SUP COM, HAWAII	EN	327	AA	39,567	78-11-01	79-03-01	5	OHA	
ENIWETOK CLEANUP	124	84th ENG BN (PROV), USA SUP COM, HAWAII	EN	327	AA	40,548	79-07-01	79-11-01	5	OHA	
ENIWETOK CLEANUP	123	84th ENG BN (PROV), USA SUP COM, HAWAII	EN	327	AA	40,221	79-03-01	79-07-01	5	OHA	
ENIWETOK CLEANUP	107	84th ENG BN (PROV), USA SUP COM, HAWAII	EN	327	AA	34,989	77-11-15	78-03-01	5	OHA	
ENIWETOK CLEANUP	123	84th ENG BN (PROV), USA SUP COM, HAWAII	EN	327	AA	40,221	78-03-01	78-07-01	5	OHA	

ENIWETOK CLEANUP	123	84th ENG BN (PROV), USA SUP COM, HAWAII	EN	327	AA	40,221	80-03-01	80-07-01	5	OHA	
ENIWETOK CLEANUP	122	84th ENG BN (PROV), USA SUP COM, HAWAII	EN	327	AA	39,894	79-11-01	80-03-01	5	OHA	
ENIWETOK CLEANUP	124	84th ENG BN (PROV), USA SUP COM, HAWAII	EN	327	AA	40,548	78-07-01	78-11-01	5	OHA	
Total				3,270		376,377					

Table D-17. INCIDENT IN GUYANA

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
INCIDENT IN GUYANA	16	1ST COSCOM, FT BRAGG, NC	GR	270	AA	4,320	78-11-18	78-12-03	3	HIP	
Total				270		4,320					

Table D-18. TF CROSBY, Newfoundland

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
TF CROSBY NEWFOUNDLAND	32	16th FLD SVC CO, FT LEE, VA	CSS	12	AA	384	85-12-12	86-01-12	5	OHA	
ENIWETOK CLEANUP	32	QM SCHOOL, FT LEE, VA	CSS	5	AA	160	85-12-12	86-01-12	5	OHA	
TF CROSBY NEWFOUNDLAND	32	530th S&S BN, FT BRAGG, NC	CSS	12	AA	384	85-12-12	86-01-12	5	OHA	
TF CROSBY NEWFOUNDLAND	32	FT CAMPBELL, KY UNITS	CSS	187	AA	5,984	85-12-12	86-01-12	5	OHA	
TF CROSBY NEWFOUNDLAND	32	FT BRAGG, NC (HANDLE REMAINS AT DOVER)	CSS	100	AA	3,200	85-12-12	86-01-12	5	OHA	
TF CROSBY NEWFOUNDLAND	32	MS X-RAY PERSONNEL, FT BRAGG, NC	MS	13	AA	416	85-12-12	86-01-12	5	OHA	
TF CROSBY NEWFOUNDLAND	32	ARMS FORCES INST OF PATHOLOGY	MS	4	AA	128	85-12-12	86-01-12	5	OHA	
Total				333		10,656					

Table D-19 Composite Entry for BLAZING TRAILS

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments

BLAZING TRAILS 87 ECUADOR	25	? various. engineer (62%), logistical, aviation, signal, medical, security	CS	6,494	RC	160,131	86-05-16	87-11-30	2	SCR	
BLAZING TRAILS HONDURAS	22	? various engineer (50%), MP (16%), and logistical units.	CS	12,568	RC	270,630	86-12-12	88-08-31	2	SCR	Compiled by IDA using strength figures given in CAA and person-days reported on pages 3-15 to 3-17, and computed the duration figure in column B
Total				19,062		430,761					

Table D-20 Composite Entry for FUERTES CAMINOS

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
FUERTES CAMINOS NORTH and SOUTH	17	? engineer brigades, logistical, aviation, signal, medical, security	CS	10,763	RC	181,686	88-10-01	89-09-30	2	SCR	Compiled by IDA using strength figures given in CAA and person-days reported on page 3-19, and computed the duration figure in column B
Total				10,763		181,686					

Table E-1. SNOW REMOVAL, Buffalo, NY

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
SNOW REMOVAL BUFFALO NY	11	96th CA BN, FT BRAGG, NC	CA	2	AA	22	77-02-04	77-02-14	4	CHA	
SNOW REMOVAL BUFFALO NY	11	1st COSCOM, FT BRAGG, NC	CSS	65	AA	715	77-02-04	77-02-14	4	CHA	
SNOW REMOVAL BUFFALO NY	11	20th ENG BDE, FT BRAGG, NC	EN	247	AA	2,717	77-02-04	77-02-14	4	CHA	
SNOW REMOVAL BUFFALO NY	18	221st ENG GP, NY ARNG	EN	617	AA	11,106	77-01-28	77-02-14	4	CHA	
SNOW REMOVAL BUFFALO NY	11	HQ XVIII ABN CORPS, FT BRAGG, NC	IN	2	AA	22	77-02-04	77-02-14	4	CHA	
SNOW REMOVAL BUFFALO NY	11	16th MP BDE, FT BRAGG, NC	MP	2	AA	22	77-02-04	77-02-14	4	CHA	
Total				935		14,604					

Table E-2. FLOOD CONTROL, Rio Del Mar, CA

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
FLOOD CONTROL RIO DEL MAR CA	4	7th IN DIV, FT ORD, CA	IN	159	AA	636	78-01-09	78-01-12	4	CHA	
Total						636					

Table E-3. SNOW REMOVAL, Toledo, OH

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
SNOW REMOVAL TOLEDO OH	10	1st CORPS SPT COMD, FT BRAGG, NC	CSS	54	AA	540	78-01-28	78-02-06	4	CHA	
SNOW REMOVAL TOLEDO OH	10	20th ENG BDE, FT BRAGG, NC	EN	355	AA	3,550	78-01-28	78-02-06	4	CHA	
SNOW REMOVAL TOLEDO OH	10	101st AA DIV, FT CAMPBELL, KY	IN	54	AA	540	78-01-28	78-02-06	4	CHA	
SNOW REMOVAL TOLEDO OH	10	82nd ABN DIV, FT BRAGG, NC	IN	47	AA	470	78-01-28	78-02-06	4	CHA	
Total						5,100					

Table E-4. SNOW REMOVAL, Boston

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
SNOW REMOVAL BOSTON	11	ENG UNITS FROM XVIII ABN CORPS, FT BRAGG	EN	506	AA	5,566	78-02-08	78-02-18	4	CHA	
Total						5,566					

Table E-5. SNOW REMOVAL, Hartford

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
SNOW REMOVAL HARTFORD	11	62 ENG BN, FT HOOD, TX	EN	301	AA	3,311	78-02-08	78-02-18	4	CHA	
Total						3,311					

Table E-6. SNOW REMOVAL, Providence

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
SNOW REMOVAL PROVIDENCE	11	36th ENG GP, FT BENNING, GA	EN	323	AA	3,553	78-02-08	78-02-18	4	CHA	
Total						3,553					

Table E-7. TORNADO, Hopkinville, KY

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
TORNADO HOPKINVILLE KY	5	20th ENG BN, FT CAMPBELL, KY	EN	69	AA	345	78-05-13	78-05-17	4	CHA	
Total						345					

Table E-8. VOLCANO, Mt St Helens

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
VOLCANO MT ST HELENS	27	10th AVN BN, FT LEWIS, WA	AV	30	AA	810	80-05-22	80-06-17	4	CHA	
VOLCANO MT ST HELENS	27	9th AVN BN, 9 ID, FT LEWIS, WA	AV	27	AA	729	80-05-22	80-06-17	4	CHA	
VOLCANO MT ST HELENS	27	3rd SQ, 5th AIR CAV, FT LEWIS, WA	CAV	32	AA	864	80-05-22	80-06-17	4	CHA	
VOLCANO MT ST HELENS	27	593rd SUP GP, FT LEWIS, WA	CSS	135	AA	3,645	80-05-22	80-06-17	4	CHA	
VOLCANO MT ST HELENS	27	54th MS DET (HELO AMB), FT LEWIS, WA	MS	36	AA	972	80-05-22	80-06-17	4	CHA	
VOLCANO MT ST HELENS	27	9th SIG, BN, 9 ID, FT LEWIS, WA	SC	51	AA	1,377	80-05-22	80-06-17	4	CHA	
Total						8,397					

Table E-9. MID-ATLANTIC STATES FLOOD

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
MID-ATLANTIC STATES FLOOD	15	3rd IN DIV (OLD GUARD)	IN	35	AA	525	85-11-04	85-11-18	4	CHA	
MID-ATLANTIC STATES FLOOD	15	FT BELVOIR, VA	IN	25	AA	375	85-11-04	85-11-18	4	CHA	
MID-ATLANTIC STATES FLOOD	15	FT CAMPBELL, KY	IN	20	AA	300	85-11-04	85-11-18	4	CHA	
MID-ATLANTIC STATES FLOOD	15	FT BRAGG, NC	IN	8	AA	120	85-11-04	85-11-18	4	CHA	
MID-ATLANTIC STATES FLOOD	15	FT LEE, VA	IN	20	AA	300	85-11-04	85-11-18	4	CHA	
MID-ATLANTIC STATES FLOOD	15	VIRGINIA ARNG	IN	159	NG	2,385	85-11-04	85-11-18	4	CHA	
MID-ATLANTIC STATES FLOOD	15	WEST VA ARNG	IN	2742	NG	41,130	85-11-04	85-11-18	4	CHA	
Total						45,135					

Table E-10. HURRICANE HUGO, SC

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
HURRICANE HUGO SC	39	1st BN, 5th AAA (-), FT STEWART, GA	AD	15	AA	585	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	3124th AVN BN, FT STEWART, GA	AV	84	AA	3,276	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	214th CAV (-), FT STEWART, GA	CAV	8	AA	312	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	24th FWD SPT BDE, FT STEWART, GA	CSS	8	AA	312	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	3rd ENG BN (-), FT STEWART, GA	EN	126	AA	4,914	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	43rd ENG BN, FT BENNING, GA	EN	379	AA	14,781	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	92nd ENG BN (-)	EN	315	AA	12,285	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	36th ENG GP, FT BENNING, GA	EN	120	AA	4,680	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	3rd BN, 15 IN (-), FT STEWART, GA	IN	222	AA	8,658	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	24th MP CO, FT STEWART, GA	MP	17	AA	663	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	260th QM BN (-)	QM	280	AA	10,920	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	24th SIG BN (-), FT STEWART, GA	SC	37	AA	1,443	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	105th SIG BN, FT BENNING, GA	SC	215	AA	8,385	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	533rd TC CO, FT BENNING, GA	TC	150	AA	5,850	89-09-22	89-10-30	4	CHA	
HURRICANE HUGO SC	39	7th TC BN, FT EUSTIS, VA	TC	48	AA	1,872	89-09-22	89-10-30	4	CHA	
Total						78,936					

Table E-11. CALIFORNIA EARTHQUAKE

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
CALIFORNIA EARTHQUAKE	30	HQ, TROOP CMD, CA ARNG (FAIRFIELD)	AG	520	NG	15,600	89-10-17	89-11-15	4	CHA	
CALIFORNIA EARTHQUAKE	30	140th AVN CO, CA ARNG (STOCKTON)	AV	12	NG	360	89-10-17	89-11-15	4	CHA	
CALIFORNIA EARTHQUAKE	30	115th AREA SUP GP, CA ARNG (ROSEVILLE)	CSS	146	NG	4,380	89-10-17	89-11-15	4	CHA	

CALIFORNIA EARTHQUAKE	30	FT ORD, CA	EN	46	NG	1,380	89-10-17	89-11-15	4	CHA	
CALIFORNIA EARTHQUAKE	30	CORPS OF ENGINEERS	EN	724	NG	21,720	89-10-17	89-11-15	4	CHA	
CALIFORNIA EARTHQUAKE	30	579th ENG, BN, CA ARNG (SANTA ROSA)	EN	254	NG	7,620	89-10-17	89-11-15	4	CHA	
CALIFORNIA EARTHQUAKE	30	PRESIDIO OF SAN FRANCISCO	IN	563	NG	16,890	89-10-17	89-11-15	4	CHA	
CALIFORNIA EARTHQUAKE	30	SIXTH U.S. ARMY	IN	175	NG	5,250	89-10-17	89-11-15	4	CHA	
CALIFORNIA EARTHQUAKE	30	40th IN MECH, CA ARNG (LOS ALAMITOS)	IN	187	NG	5,610	89-10-17	89-11-15	4	CHA	
CALIFORNIA EARTHQUAKE	30	HQ, STARC, CA ARNG (SACRAMENTO)	MS	56	NG	1,680	89-10-17	89-11-15	4	CHA	
CALIFORNIA EARTHQUAKE	30	HHCM 175th MS BDE, CA ARNG (SACRAMENTO)	MS	7	NG	210	89-10-17	89-11-15	4	CHA	
CALIFORNIA EARTHQUAKE	30	126TH MS CO (AIR AMB), CA ARNG (SACRAMENTO)	MS	65	NG	1,950	89-10-17	89-11-15	4	CHA	
CALIFORNIA EARTHQUAKE	30	Phantom MP entry to balance CAA text to CAA table totals	MP	50	NG	1,500	89-10-17	89-11-15	4	CHA	
Total						84,150					CAA report text includes MP's, CAA spreadsheet doesn't; report text credits the NG with 1,450 additional person-days, which = a 50 person MP company for 29 days, given the event MP's are probable. Add MP unit of 50 persons. Counted as a corrected error.

Table E-12. FT WAINWRIGHT FOREST FIRE

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
FT WAINWRIGHT FOREST FIRE	14	FT WAINWRIGHT PERSONNEL	IN	282	AA	3,948	80-05-20	80-06-02	4	CHA	
Total						3,948					

Table E-13. FIRE OREGON NATIONAL FOREST

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
FIRE OR. NAT. FOREST	11	AVN DET, 9th ID, FT LEWIS, WA	AV	14	AA	154	87-09-05	87-09-15	4	CHA	
FIRE OR. NAT. FOREST	11	FAST III (-)	CSS	30	AA	330	87-09-05	87-09-15	4	CHA	
FIRE OR. NAT. FOREST	11	590th S&S CO (I CORPS), FT LEWIS, WA	CSS	11	AA	121	87-09-05	87-09-15	4	CHA	
FIRE OR. NAT. FOREST	11	2nd BN, 27th IN (L), 7 ID, FT ORD, CA	IN	539	AA	5,929	87-09-05	87-09-15	4	CHA	
FIRE OR. NAT. FOREST	11	CO B, 13 ENG BN, 7 ID, FT ORD, CA	IN	10	AA	110	87-09-05	87-09-15	4	CHA	
FIRE OR. NAT. FOREST	11	6th ARMY LNO	IN	1	AA	11	87-09-05	87-09-15	4	CHA	
FIRE OR. NAT. FOREST	11	HHC, 2d BDE, 7 ID, FT ORD, CA	IN	43	AA	473	87-09-05	87-09-15	4	CHA	
FIRE OR. NAT. FOREST	11	7th MS BN, 7 ID, FT ORD, CA	MS	8	AA	88	87-09-05	87-09-15	4	CHA	
FIRE OR. NAT. FOREST	11	PAO, 7 ID, FT ORD, CA	PA	2	AA	22	87-09-05	87-09-15	4	CHA	
FIRE OR. NAT. FOREST	11	127th SIG, 7 ID, FT ORD, CA	SC	5	AA	55	87-09-05	87-09-15	4	CHA	
Total						7,293					

Table E-14. FIRE YELLOWSTONE

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
FIRE YELLOWSTONE	37	C CO, 1st BN, 44th AD, 9 ID, FT LEWIS, WA	AD	125	AA	4,625	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	1st BN, 52 AD, 9 ID, FT LEWIS, WA	AD	700	AA	25,900	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	247th MS DET (-) (HELO AMB), 9 ID, FT LEWIS, WA	AV	35	AA	1,295	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	2d PLT, A CO, 58th AVN BN, 9 ID, FT LEWIS, WA	AV	30	AA	1,110	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	A CO, 109th SPT BN, 9 ID, FT LEWIS, WA	CSS	120	AA	4,440	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	A CO, 709th SPT BN, 9 ID, FT LEWIS, WA	CSS	120	AA	4,440	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	A CO, 15 ENG, 9 ID, FT LEWIS, WA	EN	120	AA	4,440	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	1st BN, 11 FA, 9 ID, FT LEWIS, WA	FA	700	AA	25,900	88-08-18	88-09-23	4	CHA	

FIRE YELLOWSTONE	37	4th BN, 23 IN, 9 ID, FT LEWIS, WA	IN	700	AA	25,900	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	2nd BN, 2 IN, 9 ID, FT LEWIS, WA	IN	700	AA	25,900	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	A 498th MS CO, FT BENNING, GA	MS	32	AA	1,184	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	62d MS CO, 9 ID, FT LEWIS, WA	MS	45	AA	1,665	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	DET, PAO, FT LEWIS, WA	PA	11	AA	407	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	DET, 9th SIG BN, 9 ID, FT LEWIS, WA	SC	50	AA	1,850	88-08-18	88-09-23	4	CHA	
FIRE YELLOWSTONE	37	B CO, 109th SPT BN, 9 ID, FT LEWIS, WA	CSS	120	AA	4,440	88-08-18	88-09-23	4	CHA	
Total						133,496					CAA original spreadsheet improperly lists the 2 Bn Inf with 32,400 man days, when it should read 25,900 since duration (37) and strength (700) appear fixed. Used the modifed total of 133,496 person-days given here. Counted as a corrected error.

Table E-15. FIRE OREGON AND IDAHO

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
FIRE OREGON & IDAHO	17	15th ENG BN, 9 ID, FT LEWIS, WA	EN	645	AA	10,965	89-08-02	89-08-18	4	CHA	
FIRE OREGON & IDAHO	17	1st BN, 84th FA BN, 9 ID, FT LEWIS, WA	FA	645	AA	10,965	89-08-02	89-08-18	4	CHA	
Total						21,930					CAA report text combines the figures of table E-15 with E-16

Table E-16. FIRE OREGON AND IDAHO

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
FIRE OREGON & IDAHO 1	11	4-37th AR, 1st IN DIV, FT RILEY, KS	AR	577	AA	6,347	89-08-06	89-08-16	4	CHA	
FIRE OREGON & IDAHO 1	11	4-101 AVN, 101st AA DIV, FT CAMPBELL, KY	AV	32	AA	352	89-08-06	89-08-16	4	CHA	
FIRE OREGON & IDAHO 1	11	1-8 IN, 4th IN DIV (M), FT CARSON, CO	IN	565	AA	6,215	89-08-06	89-08-16	4	CHA	
Total						12,914					

Table E-17. AIR FLORIDA CRASH

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
AIR FLORIDA CRASH	15	11th ENG BN, FT BELVOIR, VA	EN	25	AA	375	82-01-13	82-01-27	4	CHA	
AIR FLORIDA CRASH	15	584th CARTOGRAPHIC CO	EN	88	AA	1,320	82-01-13	82-01-27	4	CHA	
AIR FLORIDA CRASH	15	30th ENG BN, FT BELVOIR, VA	EN	20	AA	300	82-01-13	82-01-27	4	CHA	
AIR FLORIDA CRASH	15	BALTIMORE ENG DISTRICT	EN	64	AA	960	82-01-13	82-01-27	4	CHA	
AIR FLORIDA CRASH	15	3d IN DIV (OLD GUARD)	IN	5	AA	75	82-01-13	82-01-27	4	CHA	
AIR FLORIDA CRASH	15	15th COMBAT SUP HOSP	MS	5	AA	75	82-01-13	82-01-27	4	CHA	
AIR FLORIDA CRASH	15	464th TC CO (USAR) (MS BOAT)	TC	65	AR	975	82-01-13	82-01-27	4	CHA	
Total						4,080					CAA report text description shorts AA by 3 man days for a text description total of 3,805 using old duration formula - counted as an uncorrected error

Table E-18. ALASKA OIL SPILL

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
ALASKA OIL SPILL	172	DREDGE ESSAYONS	EN	50	AA	8,600	89-04-05	89-09-23	5	OHA	
ALASKA OIL SPILL	172	DREDGE YAQUINA	EN	50	AA	8,600	89-04-05	89-09-23	5	OHA	
ALASKA OIL SPILL	172	498th MS CO, FT BENNING, GA (3 UH-60'S)	MS	36	AA	6,192	89-04-05	89-09-23	5	OHA	
Total						23,392					

Table E-19. SUPPORT TO FAA

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
SUPPORT TO FAA	608	SPECIFIC ARMY AIR TRAFFIC CONTROLLERS	AV	243	AA	147,744	81-08-01	83-03-31	4	CHA	
Total						147,744					

Table E-20. SENECA ARMY DEPOT

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
SENECA ARMY DEPOT	113	GROUND SURVEILANCE RADRS	FA	24	AA	2,712	83-07-04	83-10-24	999	Other	
SENECA ARMY DEPOT	113	MSICAL PERSONNEL	MS	30	AA	3,390	83-07-04	83-10-24	999	Other	
SENECA ARMY DEPOT	113	DOG TEAMS	MP	8	AA	904	83-07-04	83-10-24	999	Other	
SENECA ARMY DEPOT	113	2 MP COMPANIES	MP	240	AA	27,120	83-07-04	83-10-24	999	Other	
SENECA ARMY DEPOT	113	HQ, MP BN	MP	46	AA	5,198	83-07-04	83-10-24	999	Other	
Total						39,324					

Table E-21. PRISON DISTURBANCE LA AND GA

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
PRISON DISTURBANCE LA & GA	1	AVN SUPPORT, LA ARNG	AV	26	NG	26	87-11-24	87-11-24	999	Other	
PRISON DISTURBANCE LA & GA	1	199th SUP BN, LA ARNG	CSS	4	NG	4	87-11-24	87-11-24	999	Other	
PRISON DISTURBANCE LA & GA	1	528th ENG BN, LA ARNG	EN	1	NG	1	87-11-24	87-11-24	999	Other	
PRISON DISTURBANCE LA & GA	1	224th ENG GP, LA ARNG	EN	105	NG	105	87-11-24	87-11-24	999	Other	
PRISON DISTURBANCE LA & GA	1	3d BN, 156th INP, LA ARNG	IN	78	NG	78	87-11-24	87-11-24	999	Other	
PRISON DISTURBANCE LA & GA	1	159th FIELD HOSP, LA ARNG	MS	160	NG	160	87-11-24	87-11-24	999	Other	
PRISON DISTURBANCE LA & GA	1	118th MP CO, 16th MP BDE, FT BRAGG	MP	130	AA	130	87-11-24	87-11-24	999	Other	
Total						504					

Table E-22. HAWKEYE, Virgin Isles

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
HAWKEYE VIRGIN ISLES	49	AVN DET, FT BRAGG, NC	AV	24	AA	1,176	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	CIVIL AFFAIRS & PSYOPS DET, FT BRAGG, NC	CA&PS	32	AA	1,568	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	DET, 1-17th CAV, FT BRAGG, NC	CAV	12	AA	588	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	DET, 407th S&S BN, FT BRAGG, NC	CSS	6	AA	294	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	46th SUP GP (-), FT BRAGG, NC	CSS	39	AA	1,911	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	LOG ELEMENT, 1st COSCOM, FT BRAGG, NC	CSS	42	AA	2,058	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	DET, 27th ENG BDE, FT BRAGG, NC	EN	3	AA	147	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	20th ENG BN, FT BRAGG, NC	EN	40	AA	1,960	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	109th MS EVAL HOSP, AL ARNG	MS	56	AA	2,744	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	519th MI BN, FT BRAGG, NC	MI	20	AA	980	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	65th MP CO, FT BRAGG, NC	MP	148	AA	7,252	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	463d MP CO. FT LEONARD WOOD, MO	MP	146	AA	7,154	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	503d MP BN, FT BRAGG, NC	MP	56	AA	2,744	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	108th MP CO, FT BRAGG, NC	MP	155	AA	7,595	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	21st MP CO, FT BRAGG, NC	MP	146	AA	7,154	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	HQS, 16th MP BDE, FT BRAGG, NC	MP	90	AA	4,410	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	720th MP BN, FT HOOD, TX	MP	56	AA	2,744	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	ASSAULT CP, JTF 140	MP	40	AA	1,960	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	258th MP CO, FT POLK, LA	MP	135	AA	6,615	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	411th MP CO, FT HOOD, TX	MP	140	AA	6,860	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	DET, 49th PAO, FT BRAGG, NC	PA	6	AA	294	89-09-21	89-11-08	999	Other	

HAWKEYE VIRGIN ISLES	49	DET, 4th PSY OPS BN, FT BRAGG, NC	PSYOP	12	AA	588	89-09-21	89-11-08	999	Other	
HAWKEYE VIRGIN ISLES	49	50th SIG BN, FT BRAGG, NC	SC	25	AA	1,225	89-09-21	89-11-08	999	Other	
Total				1429		70,021					

Table E-23. INDOCHINESE FT CHAFFEE

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
INDOCHINESE FT CHAFFEE	247	20th AG DET REPL, FT CAMPBELL, KY	AG	35	AA	8,645	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	44th MIL HIST DET, FT MCPHERSON, GA	AG	3	AA	741	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	524th AG PERS SVC CO, FT BENNING, GA	AG	108	AA	26,676	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	USAIR PERSONNEL, CONUS-SIDE	AG	57	AA	14,079	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	96th CA BN, FT BRAGG, NC	CA	38	AA	9,386	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	LINGUIST GRP, FT HOOD, TX	CA	29	AA	7,163	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	62d CSS CO (S&S), FT HOOD, TX	CSS	111	AA	27,417	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	46th SUP GRP HHC, FT BRAGG, NC	CSS	97	AA	23,959	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	5th ENG BN, FT LEONARD WOOD, MO	EN	287	AA	70,889	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	593d ENGR CO, FT SILL, OK	EN	202	AA	49,894	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	3/9 ARTY BN, FT SILL, OK	FA	102	AA	25,194	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	USAAMS, STAFF & FACULTY, FT SILL, OK	IN	25	AA	6,175	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	226th MAINT PLT, FT SILL, OK	MAINT	65	AA	16,055	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	47th MS HOSP, FT SILL, OK	MS	109	AA	26,923	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	714th MS DET, FT BRAGG, NC	MS	8	AA	1,976	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	225th MS DET, FT SILL, OK	MS	7	AA	1,729	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	546th MP CO, FT SILL, OK	MP	27	AA	6,669	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	720th MP BN HHD, FT HOOD, TX	MP	47	AA	11,609	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	411th MP CO, FT HOOD, TX	MP	157	AA	38,779	75-04-28	75-12-30	3	HIP	

INDOCHINESE FT CHAFFEE	247	401st MP CO, FT HOOD, TX	MP	176	AA	43,472	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	28th PI DET FLD SVC, FT CARSON, CO	PI	5	AA	1,235	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	50th PI DET FLD SVC, FT BRAGG, NC	PI	5	AA	1,235	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	27th PI DET FLD SVC, FT MONROE, VA	PI	4	AA	988	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	4th PSYOP GRP, FT BRAGG, NC	PSYOP	28	AA	6,916	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	57th SIG BN, FT HOOD, TX	SC	16	AA	3,952	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	SSO DET, FT HOOD, TX	SC	5	AA	1,235	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	471st TC CO LT TRK, FT SILL, OK	TC	94	AA	23,218	75-04-28	75-12-30	3	HIP	
INDOCHINESE FT CHAFFEE	247	330th TC MOVT CTL TM, FT BRAGG, NC	TC	14	AA	3,458	75-04-28	75-12-30	3	HIP	
Total						459,667					

Table E-24. INDOCHINESE FT INDIANTOWN GAP

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	23rd REPL DET, FT BENNING, GA	AG	35	AA	7,280	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	553d ARMY POSTAL UNIT, FT DEVENS, MA	AG	12	AA	2,496	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	401st PERS SVC CO, FT KNOX, KY	AG	116	AA	24,128	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	96th CA BN, FT BRAGG, NC	CA	35	AA	7,280	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	AUGMENTATION SUP, ARMY WIDE	CSS	144	AA	29,952	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	46th SVC SUP GRP, FT CHAFFEE, AR	CSS	93	AA	19,344	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	278th CBT SUP CO (GS), FT DEVENS, MA	CSS	18	AA	3,744	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	USAR PERSONNEL, CONUS-WIDE	CSS	35	AA	7,280	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	40th CBT SUP CO (S&S), FT CARSON, CO	CSS	189	AA	39,312	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	76th ENG BN, FT MEADE, MD	EN	236	AA	49,088	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	CO B, 1st BN, 501st IN, FT CAMPBELL, KY	IN	140	AA	29,120	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	581st MAINT CO, FT MEADE, MD	MAINT	61	AA	12,688	75-05-22	75-12-15	3	HIP	

INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	42d FLD HOSP, FT KNOX	MS	154	AA	32,032	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	257th MS DET, FT JACKSON, SC	MS	17	AA	3,536	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	261st MS DET, FT BENNING, GA	MS	6	AA	1,248	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	926th MS DET, FT BENNING, GA	MS	8	AA	1,664	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	485th MS DET, FT SAM HOUSTON, TX	MS	8	AA	1,664	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	247th MS DET, FT MEADE, MD	MS	4	AA	832	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	209th MP CO, FT MEADE, MD	MP	177	AA	36,816	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	437th MP CO, FT BELVOIR, VA	MP	177	AA	36,816	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	519th MP CO, FT MEADE, MD	MP	60	AA	12,480	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	ARMY SPEC OPNS PHOTO DET, FT BRAGG, NC	MI	5	AA	1,040	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	13th PI DET, FT BENNING, GA	PI	5	AA	1,040	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	4th PSYOP GRP, FT BRAGG, NC	PSYOP	28	AA	5,824	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	330th TC MVMT TM, FT CHAFFEE, AR	TC	10		2,080	75-05-22	75-12-15	3	HIP	
INDOCHINESE RESETTLEMENT INDIANTOWN GAP	208	57th LT TRK CO, FT LEE, VA	TC	117	AA	24,336	75-05-22	75-12-15	3	HIP	
Total						393,120					

Table E-25. CUBAN FT CHAFFEE

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
CUBAN FT CHAFFEE	14	545 ADG CO, FT CAMPBELL, KY	AG	15	AA	210	80-05-08	80-05-21	3	HIP	
CUBAN FT CHAFFEE	12	5064th US ARMY GARRISON, MI - USAR	AG	20	AA	240	80-07-17	80-07-28	3	HIP	
CUBAN FT CHAFFEE	17	96th CIVIL AFFAIRS BN, FT BRAGG, NC	CA	24	AA	408	80-05-08	80-05-24	3	HIP	
CUBAN FT CHAFFEE	91	225th MAINTENANCE CO, FT SILL, OK	CSS	50	AA	4,550	80-07-17	80-10-15	3	HIP	
CUBAN FT CHAFFEE	17	299th ENGINEER BN, FT SILL, OK	EN	65	AA	1,105	80-05-08	80-05-24	3	HIP	
CUBAN FT CHAFFEE	16	3d BN, 18th FA, FT SILL, OK	FA	110	AA	1,760	80-06-02	80-06-17	3	HIP	
CUBAN FT CHAFFEE	35	1st BN, 17th FA, FT SILL, OK	FA	110	AA	3,850	80-06-02	80-07-06	3	HIP	

CUBAN FT CHAFFEE	82	4th BN, 4th, FT SILL, OK	FA	110	AA	9,020	80-07-26	80-10-15	3	HIP	
CUBAN FT CHAFFEE	32	2d BN, 37th FA, FT SILL, OK	FA	110	AA	3,520	80-06-03	80-07-04	3	HIP	
CUBAN FT CHAFFEE	44	1st BN, 12th FA, FT SILL, OK	FA	110	AA	4,840	80-06-02	80-07-15	3	HIP	
CUBAN FT CHAFFEE	79	1st BN, 12th FA, FT SILL,OK	FA	110	AA	8,690	80-07-29	80-10-15	3	HIP	
CUBAN FT CHAFFEE	7	III CORPS ARTILLERY, FT SILL, OK	FA	46	AA	322	80-06-03	80-06-09	3	HIP	
CUBAN FT CHAFFEE	5	212th FA BDE, FT SILL, OK	FA	46	AA	230	80-06-05	80-06-09	3	HIP	
CUBAN FT CHAFFEE	5	214th FA BDE, FT SILL, OK	FA	110	AA	550	80-07-11	80-07-15	3	HIP	
CUBAN FT CHAFFEE	7	214th FA BDE, FT SILL, OK	FA	46	AA	322	80-06-03	80-06-09	3	HIP	
CUBAN FT CHAFFEE	58	6th BN, 33d FA, FT SILL, OK	FA	110	AA	6,380	80-06-03	80-07-30	3	HIP	
CUBAN FT CHAFFEE	7	4th BN, 4th, FT SILL, OK	FA	110	AA	770	80-06-03	80-06-09	3	HIP	
CUBAN FT CHAFFEE	22	212th FA BDE, FT SILL, OK	FA	110	AA	2,420	80-06-21	80-07-12	3	HIP	
CUBAN FT CHAFFEE	89	2d BN, 37th FA, FT SILL, OK	FA	110	AA	9,790	80-07-19	80-10-15	3	HIP	
CUBAN FT CHAFFEE	22	2d BN, 12th FA, FT SILL, OK	FA	110	AA	2,420	80-06-02	80-06-23	3	HIP	
CUBAN FT CHAFFEE	26	2d BN, 12th FA, FT SILL, OK	FA	110	AA	2,860	80-07-09	80-08-03	3	HIP	
CUBAN FT CHAFFEE	11	2d BN, 1st FA, FT SILL, OK	FA	110	AA	1,210	80-06-03	80-06-13	3	HIP	
CUBAN FT CHAFFEE	14	2d BN, 18th FIELD ARTILLERY, FT SILL, OK	FA	110	AA	1,540	80-05-08	80-05-21	3	HIP	
CUBAN FT CHAFFEE	46	2d BN, 18th FIELD ARTILLERY, FT SILL, OK	FA	110	AA	5,060	80-06-02	80-07-17	3	HIP	
CUBAN FT CHAFFEE	74	2d BN, 18th FA	FA	110	AA	8,140	80-08-03	80-10-15	3	HIP	
CUBAN FT CHAFFEE	23	3d BN, 34th FA, FT SILL, OK	FA	110	AA	2,530	80-07-05	80-07-27	3	HIP	
CUBAN FT CHAFFEE	22	3d BN, 9th FIELD ARTILLERY, FT SILL, OK	FA	110	AA	2,420	80-05-08	80-05-29	3	HIP	
CUBAN FT CHAFFEE	24	2d BN, 36th FA, FT SILL, OK	FA	110	AA	2,640	80-05-29	80-06-21	3	HIP	
CUBAN FT CHAFFEE	16	2d BN, 36th FA, FT SILL, OK	FA	110	AA	1,760	80-06-02	80-06-17	3	HIP	
CUBAN FT CHAFFEE	13	3d BN, 9th FA, FT SILL, OK	FA	110	AA	1,430	80-07-02	80-07-14	3	HIP	
CUBAN FT CHAFFEE	18	3d BN, 18th FA, FT SILL, OK	FA	110	AA	1,980	80-07-02	80-07-19	3	HIP	
CUBAN FT CHAFFEE	3	3d BN, 34th FA, FT SILL, OK	FA	110	AA	330	80-06-02	80-06-04	3	HIP	
CUBAN FT CHAFFEE	4	489 ENGINEERING BN, AK - ARNG	FA	100	NG	400	80-06-04	80-06-07	3	HIP	

CUBAN FT CHAFFEE	2	142d FIELD ARTILLERY BDE, AK - ARNG	FA	46	NG	92	80-06-02	80-06-03	3	HIP	
CUBAN FT CHAFFEE	12	30th FINANCE DET, FT SILL, OK	FI		AA	0	80-05-08	80-05-19	3	HIP	
CUBAN FT CHAFFEE	8	4th BN, 31st IN, FT SILL, OK	IN	110	AA	880	80-06-03	80-06-10	3	HIP	
CUBAN FT CHAFFEE	46	676th MS DET, FT BENNING, GA	MS	24	AA	1,104	80-05-08	80-06-22	3	HIP	
CUBAN FT CHAFFEE	11	439th MS DET, FT LEONARD WOOD, MO	MS	20	AA	220	80-05-13	80-05-23	3	HIP	
CUBAN FT CHAFFEE	54	507 MS DET (-), FT SAM HOUSTON, TX	MS	20	AA	1,080	80-05-08	80-06-30	3	HIP	
CUBAN FT CHAFFEE	48	675th MS DET, FT BENNING, GA	MS	24	AA	1,152	80-05-08	80-06-24	3	HIP	
CUBAN FT CHAFFEE	47	44th MSICAL DET, FT BRAGG, NC	MS	110	AA	5,170	80-06-14	80-07-30	3	HIP	
CUBAN FT CHAFFEE	54	225th MS DET, FT SILL, OK	MS	20	AA	1,080	80-05-08	80-06-30	3	HIP	
CUBAN FT CHAFFEE	93	DENTAL ACTIVITY, FT SILL, OK	MS	10	AA	930	80-07-15	80-10-15	3	HIP	
CUBAN FT CHAFFEE	30	47th FIELD HOSP, FT SILL, OK	MS	25	AA	750	80-05-08	80-06-06	3	HIP	
CUBAN FT CHAFFEE	15	22d HOSPITAL SECTION, INDIANA-USAR	MS	42	AA	630	80-05-10	80-05-24	3	HIP	
CUBAN FT CHAFFEE	15	496th HOSPITAL SECTION, INDIANA-USAR	MS	42	AA	630	80-05-10	80-05-24	3	HIP	
CUBAN FT CHAFFEE	10	396th STATION HOSPITAL, PUERTO RICO-USA	MS	42	AA	420	80-05-14	80-05-23	3	HIP	
CUBAN FT CHAFFEE	8	5064th U.S. ARMY GARRISON, MI - USAR	MI	20	AR	160	80-06-22	80-06-29	3	HIP	
CUBAN FT CHAFFEE	17	977th MP CO, FT RILEY, KS	MP	110	AA	1,870	80-05-08	80-05-24	3	HIP	
CUBAN FT CHAFFEE	17	716th MP BN, FT RILEY, KS	MP	46	AA	782	80-05-08	80-05-24	3	HIP	
CUBAN FT CHAFFEE	40	546th MP Co, FT SILL, OK	MP	110	AA	4,400	80-06-14	80-07-23	3	HIP	
CUBAN FT CHAFFEE	55	258 MP Co, FT POLK, LA	MP	110	AA	6,050	80-05-08	80-07-01	3	HIP	
CUBAN FT CHAFFEE	12	314th MP PLATOON, TX - USAR	MP	35	AA	420	80-05-24	80-06-04	3	HIP	
CUBAN FT CHAFFEE	10	315th MP PLATOON, TX - USAR	MP	35	AA	350	80-05-28	80-06-06	3	HIP	
CUBAN FT CHAFFEE	17	531st MP CO, MI - USAR	MP	120	AR	2,040	80-07-11	80-07-27	3	HIP	
CUBAN FT CHAFFEE	15	316th MP PLATOON, TX - USAR	MP	30	AR	450	80-05-31	80-06-14	3	HIP	
CUBAN FT CHAFFEE	16	339th MP Co, LA - USAR	MP	120	AR	1,920	80-07-19	80-08-03	3	HIP	
CUBAN FT CHAFFEE	10	607th MP BN, TX - USAR	MP	46	AR	460	80-05-28	80-06-06	3	HIP	
CUBAN FT CHAFFEE	14	357th MP Co, MI - USAR	MP	120	AR	1,680	80-07-06	80-07-19	3	HIP	

CUBAN FT CHAFFEE	15	205th MP Co, MO - ARNG	MP	120	NG	1,800	80-06-02	80-06-16	3	HIP	
CUBAN FT CHAFFEE	16	269th MP Co, TN - ARNG	MP	120	NG	1,920	80-07-04	80-07-19	3	HIP	
CUBAN FT CHAFFEE	17	1140th MP Co, MO - ARNG	MP	120	NG	2,040	80-07-11	80-07-27	3	HIP	
CUBAN FT CHAFFEE	15	102D MP Co, MO - ARNG	MP	120	NG	1,800	80-06-07	80-06-21	3	HIP	
CUBAN FT CHAFFEE	15	1141st MP Co, MS - ARNG	MP	120	NG	1,800	80-06-07	80-06-21	3	HIP	
CUBAN FT CHAFFEE	18	225th MP Co, PUERTO RICO - ARNG	MP	120	NG	2,160	80-05-14	80-05-31	3	HIP	
CUBAN FT CHAFFEE	15	2175th MP Co, MO - ARNG	MP	120	NG	1,800	80-07-26	80-08-09	3	HIP	
CUBAN FT CHAFFEE	13	362 PSYOPS Co, OK - ARNG	MP	64	NG	832	80-06-01	80-06-13	3	HIP	
CUBAN FT CHAFFEE	16	240th MP Co, PUERTO RICO - ARNG	MP	120	NG	1,920	80-05-31	80-06-15	3	HIP	
CUBAN FT CHAFFEE	12	486th CIVIL AFFAIRS CO, OK - ARNG	MP	24	NG	288	80-06-01	80-06-12	3	HIP	
CUBAN FT CHAFFEE	16	547th MP PLATOON, MI - ARNG	MP	30	NG	480	80-06-21	80-07-06	3	HIP	
CUBAN FT CHAFFEE	16	568th MP PLATOON, MI - ARNG	MP	30	NG	480	80-06-22	80-07-07	3	HIP	
CUBAN FT CHAFFEE	15	544th MP Co, PUERTO RICO - ARNG	MP	120	NG	1,800	80-06-15	80-06-29	3	HIP	
CUBAN FT CHAFFEE	17	805th MP Co, AR - ARNG	MP	120	NG	2,040	80-07-11	80-07-27	3	HIP	
CUBAN FT CHAFFEE	15	755th MP Co, PUERTO RICO - ARNG	MP	120	NG	1,800	80-06-28	80-07-12	3	HIP	
CUBAN FT CHAFFEE	46	146th MP BN, MI - ARNG	MP	120	NG	5,520	80-07-02	80-08-16	3	HIP	
CUBAN FT CHAFFEE	13	1139th MP Co, MO - ARNG	MP	120	NG	1,560	80-06-02	80-06-14	3	HIP	
CUBAN FT CHAFFEE	24	162nd MP Co, MS - ARNG	MP	120	NG	2,880	80-06-06	80-06-29	3	HIP	
CUBAN FT CHAFFEE	15	124th MP BN, PUERTO RICO - ARNG	MP	46	NG	690	80-06-28	80-07-12	3	HIP	
CUBAN FT CHAFFEE	46	114th MP Co, MI - ARNG	MP	120	NG	5,520	80-07-02	80-08-16	3	HIP	
CUBAN FT CHAFFEE	17	13th PUB AFFAIRS DET, FT HOOD, TX	PA	4	AA	68	80-05-08	80-05-24	3	HIP	
CUBAN FT CHAFFEE	17	1st PSYOPS BN, FT BRAGG, NC	PSYOP	64	AA	1,088	80-05-08	80-05-24	3	HIP	
CUBAN FT CHAFFEE	17	11th SIGNAL BDE, FT HUACHUCA, AZ	SC	50	AA	850	80-05-08	80-05-24	3	HIP	
CUBAN FT CHAFFEE	9	471st TCP Co, FT SILL, OK	TC	50	AA	450	80-06-03	80-06-11	3	HIP	
CUBAN FT CHAFFEE	18	471st TCP Co, FT SILL, OK	TC	50	AA	900	80-05-08	80-05-25	3	HIP	
Total				6,701		170,903					

Table E-26. CUBAN FT INDIANTOWN GAP

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
CUBAN INDIANTOWN GAP	15	360th ADJ GEN DET (PERS SVCS), SC USAR	AG	26	AR	390	80-06-01	80-06-15	3	HIP	
CUBAN INDIANTOWN GAP	19	382nd AG Co (PER SVC), FT DEVINS, MA	AG	61	AA	1,159	80-05-15	80-06-02	3	HIP	
CUBAN INDIANTOWN GAP	14	3022d U.S. ARMY GARRISON	AG	104	AA	1,456	80-07-13	80-07-26	3	HIP	
CUBAN INDIANTOWN GAP	14	360th ADJ DET (PERS SVS), SC USAR	AG	35	AR	490	80-08-03	80-08-16	3	HIP	
CUBAN INDIANTOWN GAP	14	408th ADG Co (PER SVCS), NY USAR	AG	15	AR	210	80-08-03	80-08-16	3	HIP	
CUBAN INDIANTOWN GAP	15	360th ADJ GEN DET (PER SVCS), SC USAR	AG	14	AR	210	80-06-22	80-07-06	3	HIP	
CUBAN INDIANTOWN GAP	35	2nd AVN BDE, FT RILEY, KS	AV	19	AA	665	80-08-05	80-09-08	3	HIP	
CUBAN INDIANTOWN GAP	82	96th CIVIL AFFAIRS BN, FT BRAGG, NC	CA	6	AA	492	80-05-12	80-08-01	3	HIP	
CUBAN INDIANTOWN GAP	15	450th CIVIL AFFAIRS Co, MD USAR	CA	12	AR	180	80-08-10	80-08-24	3	HIP	
CUBAN INDIANTOWN GAP	15	478th CIVIL AFFAIRS Co, FL USAR	CA	23	AR	345	80-05-27	80-06-10	3	HIP	CAA table has a duration of 15 when it should be 14 by the CAA duration calculation method, yields a difference of 23, which throws off CAA summary statistics. Counted as a corrected error. The duration listed here is the corrected IDA duration.
CUBAN INDIANTOWN GAP	13	414th CIVIL AFFAIRS Co, NY USAR	CA	24	AR	312	80-06-22	80-07-04	3	HIP	
CUBAN INDIANTOWN GAP	15	478th CIVIL AFFAIRS Co, FL USAR	CA	11	AR	165	80-06-15	80-06-29	3	HIP	
CUBAN INDIANTOWN GAP	14	416th CIVIL AFFAIRS Co, PA USAR	CA	12	AR	168	80-06-21	80-07-04	3	HIP	
CUBAN INDIANTOWN GAP	14	422d CIVIL AFFAIRS Co, NC USAR	CA	19	AR	266	80-09-14	80-09-27	3	HIP	
CUBAN INDIANTOWN GAP	14	817th PERSONNEL & ADMIN BN, PA USAR	CA	12	AR	168	80-06-30	80-07-13	3	HIP	
CUBAN INDIANTOWN GAP	15	489th CIVIL AFFAIRS Co, TN USAR	CA	10	AR	150	80-06-21	80-07-05	3	HIP	
CUBAN INDIANTOWN GAP	15	352d CIVIL AFFAIRS Co, MD USAR	CA	17	AR	255	80-06-15	80-06-29	3	HIP	
CUBAN INDIANTOWN GAP	15	402d CIVIL AFFAIRS Co NY USAR	CA	21	AR	315	80-05-26	80-06-09	3	HIP	
CUBAN INDIANTOWN GAP	15	402d CIVIL AFFAIRS Co NY USAR	CA	46	AR	690	80-06-11	80-06-25	3	HIP	
CUBAN INDIANTOWN GAP	15	411th CIVIL AFFAIRS Co, CT USAR	CA	14	AR	210	80-07-05	80-07-19	3	HIP	
CUBAN INDIANTOWN GAP	13	414th CIVIL AFFAIRS Co, NY USAR	CA	46	AR	598	80-06-09	80-06-21	3	HIP	

CUBAN INDIANTOWN GAP	15	353d CIVIL AFFAIRS COMMAND, NY USAR	CA	21	AR	315	80-06-02	80-06-16	3	HIP	
CUBAN INDIANTOWN GAP	15	358th CIVIL AFFAIRS BDE, PA USAR	CA	45	AR	675	80-06-06	80-06-20	3	HIP	
CUBAN INDIANTOWN GAP	15	354th CIVIL AFFAIRS BDE, MD USAR	CA	17	AR	255	80-06-01	80-06-15	3	HIP	
CUBAN INDIANTOWN GAP	13	358 CIVIL AFFAIRS BGE, PA USAR	CA	43	AR	559	80-05-30	80-06-11	3	HIP	
CUBAN INDIANTOWN GAP	17	548th S&S BN, FT DRUM, NY	CSS	302	AA	5,134	80-05-18	80-06-03	3	HIP	
CUBAN INDIANTOWN GAP	35	1st BN, 107th FA, 28 ID (PA-ARNG)	FA	213	NG	7,455	80-08-05	80-09-08	3	HIP	
CUBAN INDIANTOWN GAP	10	1st BN, 325th INF, 82d ABN, FT BRAGG, NC	IN	542	AA	5,420	80-09-18	80-09-27	3	HIP	
CUBAN INDIANTOWN GAP	15	1st BN, 504th INF, 82d ABN, FT BRAGG, NC	IN	229	AA	3,435	80-08-06	80-08-20	3	HIP	
CUBAN INDIANTOWN GAP	29	1st BN, 505th INF, 82d ABN, FT BRAGG, NC	IN	512	AA	14,848	80-08-21	80-09-18	3	HIP	
CUBAN INDIANTOWN GAP	35	Co B, 1st BN, 325th INF, 82d ABN, FT BRAGG, NC	IN	166	AA	5,810	80-08-05	80-09-08	3	HIP	
CUBAN INDIANTOWN GAP	15	HQ, 2d BDE, 82d ABN DIV, FT BRAGG, NC	IN	28	AA	420	80-08-06	80-08-20	3	HIP	
CUBAN INDIANTOWN GAP	35	2nd BN, 110th INF, 28 ID (PA ARNG)	IN	325	NG	11,375	80-08-05	80-09-08	3	HIP	
CUBAN INDIANTOWN GAP	35	1st BN, 112th INF, 28 ID (PA-ARNG)	IN	310	NG	10,850	80-08-05	80-09-08	3	HIP	
CUBAN INDIANTOWN GAP	35	1st BN, 110th INF, 28 ID (PA-ARNG)	IN	250	NG	8,750	80-08-05	80-09-08	3	HIP	
CUBAN INDIANTOWN GAP	35	HQ, 2nd BDE, 28 ID (PA-ARNG)	IN	69	NG	2,415	80-08-05	80-09-08	3	HIP	
CUBAN INDIANTOWN GAP	35	HQ, 28th INF DIV (PA-ARNG)	IN	18	NG	630	80-08-05	80-09-08	3	HIP	
CUBAN INDIANTOWN GAP	14	4th JAG DET, NY USAR	JAG	10	AR	140	80-07-13	80-07-26	3	HIP	
CUBAN INDIANTOWN GAP	88	598 MAINTENANCE COMPANY (-), FT HOOD, TX	MAINT	14	AA	1,232	80-06-03	80-08-29	3	HIP	
CUBAN INDIANTOWN GAP	20	514th MAINT CO (-), FT DRUM, NY	MAINT	16	AA	320	80-05-14	80-06-02	3	HIP	
CUBAN INDIANTOWN GAP	32	42d FIELD HOSPITAL, FT KNOX, KY	MS	207	AA	6,624	80-05-14	80-06-14	3	HIP	
CUBAN INDIANTOWN GAP	48	105th MED DET, FT LEWIS, WA	MS	4	AA	192	80-07-18	80-09-03	3	HIP	
CUBAN INDIANTOWN GAP	51	INTELLIGENCE AND SECURITY COMMAND	MI	18	AA	918	80-07-18	80-09-06	3	HIP	
CUBAN INDIANTOWN GAP	15	770th MP Co	MP	160	AA	2,400	80-06-06	80-06-20	3	HIP	
CUBAN INDIANTOWN GAP	14	330th MP Co	MP	124	AA	1,736	80-07-12	80-07-25	3	HIP	
CUBAN INDIANTOWN GAP	94	293d MP Co, FT MEADE, MD	MP	114	AA	10,716	80-05-14	80-08-15	3	HIP	
CUBAN INDIANTOWN GAP	13	21st MP Co, FT BRAGG, NC	MP	125	AA	1,625	80-08-06	80-08-18	3	HIP	

CUBAN INDIANTOWN GAP	72	65th MP Co, FT BRAGG, NC	MP	154	AA	11,088	80-06-07	80-08-17	3	HIP	
CUBAN INDIANTOWN GAP	85	209 MP Co, FT MEADE, MD	MP	42	AA	3,570	80-05-18	80-08-10	3	HIP	
CUBAN INDIANTOWN GAP	89	HQ & HQ DET, 519th MP BN, FT MEADE, MD	MP	60	AA	5,340	80-05-14	80-08-10	3	HIP	
CUBAN INDIANTOWN GAP	15	480th MP Co	MP	172	AA	2,580	80-05-24	80-06-07	3	HIP	
CUBAN INDIANTOWN GAP	15	HQ & HQ Co, 160th MP BN	MP	92	AA	1,380	80-08-22	80-09-05	3	HIP	
CUBAN INDIANTOWN GAP	11	HQ & HQ DET, 503d MP BN, FT BRAGG, NC	MP	44	AA	484	80-08-08	80-08-18	3	HIP	
CUBAN INDIANTOWN GAP	15	471st MP Co	MP	85	AA	1,275	80-06-15	80-06-29	3	HIP	
CUBAN INDIANTOWN GAP	21	402d MP Co, FT HOOD, TX	MP	84	AA	1,764	80-05-18	80-06-07	3	HIP	
CUBAN INDIANTOWN GAP	88	22d MP DET (PW/CIC), FT McCLELLAN, AL	MP	36	AA	3,168	80-05-15	80-08-10	3	HIP	
CUBAN INDIANTOWN GAP	16	HHD, 124 MP BN	MP	17	AA	272	80-05-23	80-06-07	3	HIP	
CUBAN INDIANTOWN GAP	15	213th MP Co, NC USAR	MP	104	AR	1,560	80-06-27	80-07-11	3	HIP	
CUBAN INDIANTOWN GAP	15	1136th MP Co, MO USAR	MP	89	AR	1,335	80-06-15	80-06-29	3	HIP	
CUBAN INDIANTOWN GAP	15	171st MP Co, OH USAR	MP	72	AR	1,080	80-06-15	80-06-29	3	HIP	
CUBAN INDIANTOWN GAP	5	157th MP Co, WV USAR	MP	76	AR	380	80-06-03	80-06-07	3	HIP	
CUBAN INDIANTOWN GAP	13	143d MP Co, CT USAR	MP	74	AR	962	80-07-13	80-07-25	3	HIP	
CUBAN INDIANTOWN GAP	13	175th MP Co, MO USAR	MP	138	AR	1,794	80-07-13	80-07-25	3	HIP	
CUBAN INDIANTOWN GAP	13	46th MP Co, MI ARNG	MP	97	NG	1,261	80-08-04	80-08-16	3	HIP	
CUBAN INDIANTOWN GAP	13	1175th MP Co, MO ARNG	MP	43	NG	559	80-07-13	80-07-25	3	HIP	
CUBAN INDIANTOWN GAP	18	209th MP Co, MI ARNG	MP	116	NG	2,088	80-08-21	80-09-07	3	HIP	
CUBAN INDIANTOWN GAP	5	152d MP DET (PW/CIIC), WV ARNG	MP	42	NG	210	80-06-03	80-06-07	3	HIP	
CUBAN INDIANTOWN GAP	6	108th MP Co, NY ARNG	MP	137	NG	822	80-08-13	80-08-18	3	HIP	
CUBAN INDIANTOWN GAP	14	171st MP DET, NY ARNG	MP	27	NG	378	80-06-15	80-06-28	3	HIP	
CUBAN INDIANTOWN GAP	31	50th PA DET, FT BRAGG, NC	PA	3	AA	93	80-05-15	80-06-14	3	HIP	
CUBAN INDIANTOWN GAP	10	300th PA DET, FT BRAGG, NC	PA	12	AA	120	80-08-12	80-08-21	3	HIP	
CUBAN INDIANTOWN GAP	28	4th GROUP, 6th PSYOPS BN, FT BRAGG, NC	PSYOP	8	AA	224	80-05-18	80-06-14	3	HIP	
CUBAN INDIANTOWN GAP	17	4th Gp, 6th PSY OPS BN, FT BRAGG, NC	PSYOP	27	AA	459	80-05-18	80-06-03	3	HIP	

CUBAN INDIANTOWN GAP	14	7th PSY OPS BN, CA USAR	PSYOP	16	AR	224	80-07-06	80-07-19	3	HIP	
CUBAN INDIANTOWN GAP	15	5th PSY OPS GROUP, DC USAR	PSYOP	16	AR	240	80-07-20	80-08-03	3	HIP	
CUBAN INDIANTOWN GAP	45	16th PSYOPS CO, WV USAR	PSYOP	47	AR	2,115	80-07-16	80-08-29	3	HIP	
CUBAN INDIANTOWN GAP	15	5th PSY OPS GROUP, DC USAR	PSYOP	53	AR	795	80-08-10	80-08-24	3	HIP	
CUBAN INDIANTOWN GAP	15	351 PSY OPS Co, NY USAR	PSYOP	10	AR	150	80-07-19	80-08-02	3	HIP	
CUBAN INDIANTOWN GAP	16	414th CIVIL AFFAIRS Co, NY USAR	PSYOP	10	AR	160	80-07-26	80-08-10	3	HIP	
CUBAN INDIANTOWN GAP	16	411th CIVIL AFFAIRS Co, CT USAR	PSYOP	10	AR	160	80-07-27	80-08-11	3	HIP	
CUBAN INDIANTOWN GAP	9	351st PSY OPS Co, CA USAR	PSYOP	12	AR	108	80-07-05	80-07-13	3	HIP	
CUBAN INDIANTOWN GAP	15	Co C, 99th SIGNAL BN, NY USAR	SC	15	AR	225	80-08-16	80-08-30	3	HIP	
Total				6,469		161,566					

Table E-27. CUBAN FT MCCOY

Operation	Duration	Unit	Type Unit	Strength	Comp	Man-Days	Start Date	End Date	SSC #	SSC Type	Comments
CUBAN FT MC COY	151	401st AG, CO, FT KNOX, KY	AG	105	AA	15,855	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	151	DEP AND ARR AIRFIELD CNTRL GP, FT RILEY,	AV	25	AA	3,775	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	151	96TH CA GP(-), FT BRAGG, NC	CA	9	AA	1,359	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	151	43D CA GP, WI USAR	CA	64	AR	9,664	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	151	52D ENG BN(-), FT CARSON, CO	EN	177	AA	26,727	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	151	86TH COMBAT CPT HOSP, FT CAMPBELL, KY	MS	185	AA	27,935	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	151	48TH MED DET, FT RILEY, KS	MS	50	AA	7,550	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	151	US ARMY INTELL AND SECURITY COMMAND	MI	6	AA	906	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	151	HQ III CORPS, FT HOOD, TX (INTERPRETERS)	MI	99	AA	14,949	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	130	978TH MP CO, FT BLISS, TX	MP	60	AA	7,800	80-05-28	80-10-04	3	HIP	
CUBAN FT MC COY	120	984TH MP CO, FT CARSON, CO	MP	60	AA	7,200	80-06-07	80-10-04	3	HIP	
CUBAN FT MC COY	151	759TH MP BN, FT DIX, NJ	MP	295	AA	44,545	80-05-18	80-10-15	3	HIP	

CUBAN FT MC COY	151	32D MP CO, WI ARNG	MP	58	AA	8,758	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	6	194TH MP CO, FT KNOX, KY	MP	60	AA	360	80-09-27	80-10-02	3	HIP	
CUBAN FT MC COY	151	511TH MP CO, FT DIX, NJ	MP	110	AA	16,610	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	151	463RD MP CO, FT LEONARD WOOD, MO	MP	112	AA	16,912	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	7	1ST MP CO, FT RILEY, KS	MP	60	AA	420	80-09-26	80-10-02	3	HIP	
CUBAN FT MC COY	73	401ST MP CO, FT HOOD, TX	MP	60	AA	4,380	80-07-07	80-09-17	3	HIP	
CUBAN FT MC COY	15	135TH MP CO, OH ARNG	MP	60	NG	900	80-07-26	80-08-09	3	HIP	
CUBAN FT MC COY	15	1175TH MP CO, MI ARNG	MP	60	NG	900	80-08-02	80-08-16	3	HIP	
CUBAN FT MC COY	15	377TH MP CO, OH ARNG	MP	60	NG	900	80-07-26	80-08-09	3	HIP	
CUBAN FT MC COY	15	361ST MP CO, OH ARNG	MP	60	NG	900	80-07-26	80-08-09	3	HIP	
CUBAN FT MC COY	15	210TH MP CO, OH ARNG	MP	60	NG	900	80-08-02	80-08-16	3	HIP	
CUBAN FT MC COY	15	535TH MP CON, OH ARNG	MP	60	NG	900	80-07-26	80-08-09	3	HIP	
CUBAN FT MC COY	15	447TH MP CO, OH ARNG	MP	60	NG	900	80-08-09	80-08-23	3	HIP	
CUBAN FT MC COY	15	257TH MP CO, MN ARNG	MP	60	NG	900	80-08-09	80-08-23	3	HIP	
CUBAN FT MC COY	15	233RD MP CO, IN ARNG	MP	60	NG	900	80-08-02	80-08-16	3	HIP	
CUBAN FT MC COY	151	28TH PA DET, FT CARSON, CO	PA	4	AA	604	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	151	363D PA DET, MO USAR	PA	6	AR	906	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	151	8TH BN, 4TH PSY OPS GP, FT BRAGG, NC	PSYOP	5	AA	755	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	151	13TH PSY OPS BN, MN USAR	PSYOP	64	AR	9,664	80-05-18	80-10-15	3	HIP	
CUBAN FT MC COY	15	350TH PSY OPS CO, OH ARNG	PSYOP	64	NG	960	80-07-26	80-08-09	3	HIP	
CUBAN FT MC COY	15	245TH PSY OPS CO, TX ARNG	PSYOP	64	NG	960	80-08-10	80-08-24	3	HIP	
CUBAN FT MC COY	15	3RD PSY OPS CO, PA ARNG	PSYOP	64	NG	960	80-08-09	80-08-23	3	HIP	
CUBAN FT MC COY	151	12TH TRANS CO (LT TRK) FT LEONARD WOOD, MO	TC	78	AA	11,778	80-05-18	80-10-15	3	HIP	
Total				2,484		250,392					CAA summary statistics add one AR to total unit strength to get 2,485 for the total strength of units involved vs. spreadsheet figure of 2,484. Counted as an uncorrected error.

DFI Code Book and Database

DFI Database Coding

No.:	A record number from 1-406 corresponding to the accompanying mission. These record numbers were added by IDA for quick reference purposes since the original DFI database was organized by geographic CINC. IDA sorted the DFI database by ascending start date and attached the record number.
Mission Name:	Either the official military operation name for a given event (e.g. Intense Look) or a short phrase describing the event (e.g. Lebanon Refugee Aid).
Country:	The name of the country in which the operation was focused. It should be noted that operations may be spread across several countries, for example, airlifting troops to Honduras for military exercises with the purpose of influencing events in neighboring Nicaragua. Other operations may occur not in countries but in international bodies of water.
Start Date:	The date the operation began in a month/day/year format.
End Date:	The date the operation ended in a month/day/year format.
Duration:	The length of the event. This figure is computed by subtracting the start date from the end date and adding one day. This provides a consistent formula for dealing with events that begin and end on the same day and would otherwise result in a zero duration. This figure is derived by a formula in the spreadsheet. The original DFI database did not contain duration information. IDA has adopted the same duration convention across all four databases.
SSC #:	IDA's coding of the event based upon criteria determined by the Office of the Secretary of Defense. For a complete discussion of SSC coding see the introduction section to the coding book.
SSC Type:	Alphabetic characters corresponding to the SSC # and provided for the reader to more easily convert the numeric coding to a specific mission type to a plain English description. Both numeric and alphabetic coding

are used as each offers advantages in working with the data. Because the SSC Type is determined by a formula converting the numeric values in the SSC # to alphabetic characters, in those operations which lack a SSC #, the value of "FALSE" appears. This has no significance beyond that of missing data.

Missions/Sorties /Hours: This measure contains an undifferentiated mixture of missions, sorties, and flying hours. Although this category contains information of interest, the lack of discrimination makes analysis impossible. In addition, definitions of mission and sortie are not provided.

Comments: Comments concerning the addition/subtraction of data to the database, the validity of data, notes about a variety of errors, any modifications to the database, and other issues of note are recorded here. These are IDA's comments and not those of the original authors.

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
1	El Salvador	El Salvador	1/1/81	1/1/81	1	2	SCR	984	The missions/sorties measure appears to be high, even considering the possibility that these are flying hours
2	Greece	Greece	3/5/81	3/6/81	2	5	OHA	1	
3	Gambia	Gambia	7/1/81	7/1/81	1	1	NEO	0	
4	Chad	Chad	7/6/81	7/13/81	8	5	OHA	113	
5	Peru	Peru	7/14/81	7/14/81	1	5	OHA	1	
6	Philippines	Philippines	9/1/81	9/1/81	1	5	OHA	1	
7	Turkey	Turkey	11/1/81	11/1/81	1	5	OHA	0	
8	Chad	Chad	11/16/81	11/30/81	15	11	IP	0	
9	Korea	Korea	12/1/81	12/1/81	1	2	SCR	0	
10	Dakar	Senegal	12/8/81	12/15/81	8	5	OHA	5	
11	Project ELSA	El Salvador	3/31/82	5/31/82	62	2	SCR	0	
12	Bare Base	UK	5/1/82	5/1/82	1	2	SCR	0	
13	Peace Rapid	Argentina	5/1/82	6/1/82	32	2	SCR	12	
14	Panama	Panama	5/1/82	5/1/82	1	5	OHA	49	
15	Lebanon Refugee Relief	Lebanon	6/1/82	6/30/82	30	3	HIP	0	
16	El Salvador	El Salvador	6/21/82	8/1/82	42	999	Other	16	
17	Somalia	Somalia					FALSE	10	Either DFI start date of 7/2/82 or end date of 8/30/95 are incorrect since event duration was clearly not this long. Counted as an uncorrected error.
18	Chad	Chad	7/6/82	7/13/82	8	5	OHA	7	
19	Lebanon Refugee Aid	Lebanon	8/1/82	8/31/82	31	3	HIP	0	
20	Beirut Airlift	Lebanon	8/1/82	10/1/82	62	3	HIP	2	
21	Typhoon Iwa	?	11/1/82	11/1/82	1	5	OHA	2	
22	Tunisia	Tunisia	11/1/82	11/1/82	1	5	OHA	0	
23	Elf One	Saudi Arabia	1/1/83	12/31/83	365	2	SCR	965	The missions/sortie figure for this event appears to be a generic entry for each of the Elf One entries
24	Italy	Italy	1/1/83	1/1/83	1	5	OHA	0	
25	Nigeria	Nigeria	1/28/83	1/30/83	3	5	OHA	1	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
26	Fiji	Fiji	3/1/83	3/1/83	1	5	OHA	0	
27	Colombia	Colombia	3/31/83	4/7/83	8	5	OHA	5	
28	Bombing of US Embassy	Lebanon	4/1/83			1	NEO	0	Missing end date. Counted as an uncorrected error
29	Lebanon	Lebanon	4/1/83	4/1/83	1	1	NEO	1	
30	Turks	Bahamas	5/1/83	5/1/83	1	999	Other	2	
31	El Salvador	El Salvador	6/1/83	6/1/83	1	5	OHA	2	
32	Peru	Peru	6/27/83	7/1/83	5	5	OHA	13	
33	Ecuador	Ecuador	7/1/83	8/1/83	32	5	OHA	2	
34	Ecuadoran Floods	Ecuador	7/1/83	7/31/83	31	5	OHA	0	
35	Senior Look	Egypt	7/2/83	8/19/83	49	2	SCR	0	
36	Chad	Chad	7/25/83	8/3/83	10	2	SCR	17	
37	Beirut	Lebanon	8/1/83	8/1/83	1	10	LPO	2	
38	Sudan	Sudan	8/2/83	8/28/83	27	2	SCR	44	
39	Chad	Chad	8/7/83	8/10/83	4	2	SCR	3	
40	Chad	Chad	8/15/83	9/15/83	32	2	SCR	12	
41	KAL 007	Japan	9/1/83	9/12/83	12	5	OHA	25	
42	KAL Flight 007 Recovery	South Korea	9/1/83	9/30/83	30	5	OHA	4	
43	Truk Island	Truk Island	9/1/83	9/1/83	1	5	OHA	0	
44	Rubber Wall	Lebanon	9/3/83	9/25/83	23	10	LPO	113	
45	El Salvador	El Salvador	10/1/83	10/1/83	1	2	SCR	5	
46	Korea	Korea	10/9/83	10/9/83	1	2	SCR	2	
47	Urgent Fury: Airlift	Grenada	10/22/83	12/15/83	55	9	INT	991	It is unclear why the missions/sorties measure for the four Grenada-related events is so uneven, with two entries having the same figure and one entry having no data at all.
48	Urgent Fury	Grenada					FALSE	991	Data suppressed to eliminate double counting. Counted as a corrected error.
49	Urgent Fury: Refueling	Grenada					FALSE	0	Data suppressed to eliminate double counting. Counted as a corrected error.
50	Lebanon	Lebanon	10/23/83	11/16/83	25	1	NEO	35	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
51	Grenada	Granada					FALSE	19	Data suppressed to eliminate double counting. Counted as a corrected error.
52	Grenada	Grenada	11/1/83	11/1/83	1	10	LPO	0	
53	Turkey	Turkey	11/1/83	11/5/83	5	5	OHA	17	
54	Turkey	Turkey	12/1/83	12/1/83	1	10	LPO	0	
55	Lebanon	Lebanon	12/1/83	12/1/83	1	10	LPO	3	
56	Grenada	Grenada	1/1/84	12/31/84	366	10	LPO	152	
57	Elf One	Saudi Arabia	1/1/84	12/31/84	366	2	SCR	965	
58	Honduras	Honduras	1/1/84	12/31/84	366	2	SCR	200	
59	El Salvador	El Salvador	1/17/84	1/17/84	1	999	Other	1	
60	Lebanon	Lebanon	2/24/84	2/24/84	1	10	LPO	2	
61	Egypt	Egypt	3/1/84	3/1/84	1	2	SCR	0	
62	El Salvador	El Salvador	3/16/84	3/16/84	1	2	SCR	2	
63	Eagle Lift: Refueling	Egypt	3/19/84	4/9/84	22	2	SCR	7	
64	Eagle Lift	Egypt	3/19/84	4/9/84	22	2	SCR	45	
65	Eagle Lift: Air Lift	Egypt	3/19/84	4/9/84	22	2	SCR	45	
66	Eagle Lift: Surveillance	Egypt	3/19/84	4/9/84	22	2	SCR	45	
67	Sudan	Sudan	8/1/84	9/1/84	32	2	SCR	0	
68	Johnson Island	Johnson Is	8/1/84			5	OHA	2	Missing end date. Counted as an uncorrected error
69	Intense Look	Saudi Arabia	8/7/84	10/2/84	57	2	SCR	44	
70	South Korea	South Korea	9/1/84			5	OHA	0	Missing end date. Counted as an uncorrected error
71	Zaire	Zaire	9/19/84	9/21/84	3	5	OHA	2	
72	Lebanon	Lebanon	9/24/84	9/24/84	1	999	Other	2	
73	Indira Gandhi	India	10/23/84	10/23/84	1	2	SCR	0	
74	Cuba	Cuba	11/1/84	11/1/84	1	2	SCR	0	
75	Colombia	Colombia	11/1/84	11/1/84	1	999	Other	2	
76	Africa	Africa	12/1/84	12/31/84	31	5	OHA	8	
77	Mercy Airlift	Sudan	12/22/84	12/29/84	8	5	OHA	10	
78	Elf One	Saudi Arabia	1/1/85	12/31/85	365	2	SCR	965	
79	Mali	Mali	1/1/85	1/1/85	1	5	OHA	1	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
80	Africa	Africa	1/1/85	3/1/85	60	5	OHA	8	
81	Typhoon Eric	Fiji Islands	1/1/85	1/1/85	1	5	OHA	3	
82	Honduras	Honduras	1/1/85	12/31/85	365	2	SCR	109	
83	El Salvador	El Salvador	1/1/85	12/31/85	365	999	Other	15	
84	Mercy Airlift	Sudan	1/18/85	1/23/85	6	5	OHA	4	
85	Mozambique	Mozambique	2/1/85	2/1/85	1	5	OHA	1	
86	Argentina	Argentina	2/3/85	2/3/85	1	5	OHA	2	
87	Chile	Chile	3/1/85	3/1/85	1	5	OHA	1	
88	Sudan	Sudan	3/5/85	3/9/85	5	5	OHA	1	
89	Mali	Mali	3/5/85	3/11/85	7	5	OHA	2	
90	Niger	Niger	3/5/85	3/10/85	6	5	OHA	1	
91	Chile	Chile	3/15/85	3/15/85	1	5	OHA	2	
92	Operation Bahamas	Bahamas	4/5/85	4/20/85	16	999	Other	0	
93	Project Raft	Mali	5/1/85			999	Other	32	Missing end date. Counted as an uncorrected error
94	Sudan	Sudan	8/1/85			5	OHA	1	Missing end date. Counted as an uncorrected error
95	Sudan	Sudan	8/15/85	11/27/85	105	5	OHA	4	
96	Mexico	Mexico	9/21/85	9/30/85	10	5	OHA	22	
97	Puerto Rico	Puerto Rico	10/7/85	10/7/85	1	5	OHA	10	
98	Colombia	Colombia	11/15/85	11/18/85	4	5	OHA	0	
99	Ponape	Ponape Island	11/21/85	11/21/85	1	5	OHA	1	
100	Gander, Nflnd	Canada	12/12/85	1/20/85		5	OHA	26	Negative duration deleted. Counted as an uncorrected error.
101	Sinai	Egypt	12/17/85	12/19/85	3	11	IP	4	
102	Elf One	Saudi Arabia	1/1/86	12/31/86	365	2	SCR	965	
103	Afghanistan	Pakistan	1/1/86	11/1/91	2,131	5	OHA	100	
104	Afghanistan	Afghanistan	3/1/86	3/5/86	5	5	OHA	80	
105	Combat Catch	Ukraine	4/1/86	5/31/86	61	5	OHA	11	
106	Chernobyl		4/1/86	5/15/86	45	5	OHA	50	
107	Eldorado Canyon	Libya	4/14/86	4/14/86	1	9	INT	0	
108	Solomon Islands	Solomon Is	5/1/86	5/1/86	1	5	OHA	4	
109	Jamaica	Jamaica	6/1/86	6/1/86	1	5	OHA	5	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
110	Blast Furnace	Bolivia	7/1/86	11/15/86	138	999	Other	10	
111	Cameroon	Cameroon	8/1/86	8/1/86	1	5	OHA	1	
112	Korea	Korea	9/20/86	10/5/86	16	2	SCR	0	
113	Philippines	Philippines	9/22/86	9/23/86	2	5	OHA	2	
114	El Salvador	El Salvador	10/11/86	10/16/86	6	5	OHA	22	
115	Puerto Rico	Puerto Rico	1/1/87	1/4/87	4	999	Other	2	
116	Elf One	Saudi Arabia	1/1/87	12/31/87	365	2	SCR	965	
117	Honduras	Honduras	1/1/87	12/31/87	365	2	SCR	448	
118	Typhoon Uma	New Guinea	2/1/87	2/1/87	1	5	OHA	8	
119	Philippines	Philippines	2/26/87	2/28/87	3	999	Other	2	
120	Ecuador	Ecuador	3/8/87	3/13/87	6	5	OHA	10	
121	Egypt	Egypt	4/1/87	4/1/87	1	11	IP	1	
122	USS Stark	Saudi Arabia	5/26/87	5/26/87	1	5	OHA	1	
123	Earnest Will	Persian Gulf	7/22/87	12/21/88	519	2	SCR	0	
124	Chad	Chad	9/1/87	9/1/87	1	5	OHA	0	
125	Thailand	Thailand	9/1/87	9/1/87	1	5	OHA	0	
126	Counter Narcotics	Mexico	1/1/88	12/31/88	366	999	Other		
127	Earnest Will	Saudi Arabia	1/1/88	10/1/88	275	2	SCR	0	
128	Elf One	Saudi Arabia	1/1/88	12/31/88	366	2	SCR	965	
129	Afghan Relief	Pakistan	1/1/88	12/31/88	366	5	OHA	67	
130	Mexico	Mexico	2/1/88	2/1/88	1	5	OHA	1	
131	Typhoon Roy	Marshall Is	2/1/88	2/1/88	1	5	OHA	2	
132	Issue Forth	Pakistan	4/1/88	4/30/88	30	2	SCR	2	
133	Persian Gulf	Iran	4/1/88	4/1/88	1	2	SCR	0	
134	Sinai	Sinai	4/1/88	4/30/88	30	11	IP	0	
135	Valiant Boom	Panama	4/5/88	4/11/88	7	2	SCR	45	
136	Bahrain	Bahrain	4/8/88	4/8/88	1	5	OHA	0	
137	Persian Gulf	Iran	4/18/88	4/19/88	2	2	SCR	0	
138	Greenland	Greenland	4/19/88	4/20/88	2	5	OHA	1	
139	Pakistan	Pakistan	4/19/88	4/20/88	2	5	OHA	4	
140	Pakistan	Pakistan	4/23/88	4/24/88	2	5	OHA	0	
141	Sudan	Sudan	6/1/88	8/1/88	62	5	OHA	3	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
142	Somalia	Somalia	8/1/88	8/1/88	1	5	OHA	1	
143	Post Road	Iraq	8/15/88	8/28/88	14	11	IP	69	
144	Korea	Korea	9/1/88	9/30/88	30	8	LCR	0	
145	Bangladesh	Bangladesh	9/11/88	9/15/88	5	5	OHA	3	
146	Jamaica	Jamaica	9/13/88	10/1/88	19	5	OHA	12	
147	Philippines	Philippines	10/1/88	10/1/88	1	5	OHA	0	
148	Cameroon/Chad	Cam/Chad	11/1/88	11/1/88	1	5	OHA	1	
149	Senegal	Senegal	11/16/88	11/30/88	15	5	OHA	14	
150	Armenia	Armenia	12/10/88	12/31/89	387	5	OHA	24	
151	Kenya	Kenya	12/20/88	12/21/88	2	5	OHA	0	
152	Elf One	Saudi Arabia	1/1/89	5/30/89	150	2	SCR	965	
153	Armenia	Armenia	1/1/89	2/9/89	40	5	OHA	13	
154	Honduras	Honduras	1/1/89	12/31/89	365	3	HIP	34	
155	Jamaica	Jamaica	2/1/89	2/1/89	1	5	OHA	18	
156	Armenia	USSR	2/2/89	2/9/89	8	5	OHA	3	
157	Election District	Namibia	3/5/89	5/31/89	88	11	IP	23	
158	USS Iowa	USS Iowa	4/1/89	4/1/89	1	999	Other	1	
159	Africa 1	Gambia	4/7/89	4/12/89	6	5	OHA	2	
160	Nimrod Dancer	Panama	5/10/89	5/10/89	1	2	SCR	1	
161	Nimrod Dancer	Panama	5/11/89	5/11/89	1	2	SCR	0	
162	Blade Jewel	Panama	5/16/89	6/29/89	45	1	NEO	50	
163	Afghan Relief	Pakistan	5/30/89	6/6/89	8	999	Other	2	
164	USSR	USSR	6/9/89	6/11/89	3	5	OHA	3	
165	Afghan Relief	Pakistan	7/7/89	7/11/89	5	999	Other	2	
166	Liberia	Liberia	8/31/89	9/1/89	2	5	OHA	0	
167	Hawkeye	Virgin Islands	9/21/89	9/30/89	10	5	OHA	32	
168	Hugo Relief	Caribbean	9/21/89	9/20/89		5	OHA	215	Negative duration deleted. Counted as an uncorrected error.
169	Africa 2	Liberia	9/30/89	10/9/89	10	5	OHA	7	
170	Joint Task Force	Philippines	12/1/89	12/9/89	9	2	SCR	2	
171	Just Cause	Panama	12/17/89	2/14/90	60	9	INT	775	
172	Panama	Panama	12/18/89	12/19/89	2	9	INT	0	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
173	Panama	Panama	12/20/89	1/5/90	17	10	LPO	9	
174	Armenia	USSR	12/29/89	12/29/89	1	5	OHA	1	
175	Counter Narcotics	Mexico	1/1/90	12/31/90	365	999	Other		
176	Coronet Nighthawk	Mexico	1/1/90	12/31/90	365	999	Other		
177	Denton Amendment	Worldwide	1/1/90	12/31/90	365	5	OHA	19	
178	Ivory Coast	Ivory Coast	2/1/90	2/1/90	1	5	OHA	1	
179	Western Samoa	Western Sam	2/1/90	2/2/90	2	5	OHA	6	
180	Paraguay/Argentina	Para/Argen	2/1/90	2/1/90	1	5	OHA	0	
181	Typhoon Ofa	Samoa	2/6/90	2/10/90	5	5	OHA	3	
182	Philippines	Philippines	7/1/90	7/30/90	30	5	OHA	500	
183	Southwest Asia	SWAsia	8/1/90	2/1/91	185	5	OHA	0	
184	Desert Shield	Saudi Arabia	8/7/90	1/15/91	162	8	LCR	0	
185	Jordan	Jordan	9/1/90	9/30/90	30	1	NEO	1	
186	Korea	South Korea	12/1/90			5	OHA	0	Missing end date. Counted as an uncorrected error
187	Guam	Guam	12/1/90			5	OHA	2	Missing end date. Counted as an uncorrected error
188	Coronet Nighthawk	Mexico	1/1/91	12/31/91	365	999	Other		
189	Counter Narcotics	Mexico	1/1/91	12/31/91	365	999	Other		
190	Sudan	Sudan	1/1/91	1/1/91	1	1	NEO	1	
191	NATO Minister's Agreement		1/1/91	4/1/92	457	999	Other		
192	Eastern Exit	Somalia	1/3/91	1/6/91	4	1	NEO	0	
193	Desert Storm	Kuwait	1/16/91	2/28/91	44	9	INT	0	
194	Liberia	Liberia	2/1/91	2/1/91	1	3	HIP	2	
195	Sierra Leone	Sierra Leone	2/1/91	11/1/91	274	5	OHA	2	
196	Laos	Laos	2/1/91	2/1/91	1	5	OHA	2	
197	Nicaragua	Nicaragua	2/1/91	2/1/91	1	5	OHA	1	
198	Kuwait/Iraq	Kuwait/Iraq	3/1/91	3/1/91	1	999	Other	2	
199	Kuwait	Kuwait	3/1/91	6/1/91	93	5	OHA	8	
200	Armenia	Armenia	3/1/91	3/1/91	1	5	OHA	1	
201	Romania	Romania	3/1/91	6/1/91	93	5	OHA	2	
202	Peru	Peru	4/1/91	4/1/91	1	5	OHA	2	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
203	Provide Comfort I	Iraq	4/6/91	7/20/91	106	3	HIP	17,206	
204	Iraq	Iraq	4/28/91	5/6/91	9	3	HIP	130	
205	Romania	Romania	5/1/91	5/1/91	1	5	OHA	1	
206	Bosnia-Herzegovina	Bosnia	5/1/91	5/31/91	31	3	HIP	0	
207	Sea Angel/Productive Effort	Bangledesh	5/1/91	5/30/91	30	5	OHA	29	
208	Ecuador	Ecuador	5/1/91	5/1/91	1	5	OHA	1	
209	Sea Angel	Bangladesh	5/11/91	6/13/91	34	5	OHA	29	
210	Kenya	Kenya	6/1/91	6/1/91	1	5	OHA	1	
211	Ethiopia	Ethiopia	6/1/91	6/30/91	30	5	OHA	7	
212	Kuwait	Kuwait	6/1/91	6/1/91	1	10	LPO	1	
213	Romania	Romania	6/1/91	6/1/91	1	5	OHA	1	
214	Fiery Vigil	Philippines	6/1/91	6/28/91	28	1	NEO	0	
215	Mongolia	Mongolia	6/1/91	6/1/91	1	5	OHA	1	
216	Ecuador	Ecuador	6/1/91	6/1/91	1	5	OHA	1	
217	Peru	Peru	6/1/91	6/1/91	1	5	OHA	1	
218	Ethiopia	Ethiopia	7/1/91	9/1/91	63	5	OHA	17	
219	Kuwait	Kuwait	7/1/91	6/1/91		10	LPO	1	Negative duration deleted. Counted as an uncorrected error.
220	Chad	Chad	7/1/91	7/1/91	1	5	OHA	1	
221	Romania	Romania	7/1/91	7/1/91	1	5	OHA	1	
222	Albania	Albania	7/1/91	7/1/91	1	5	OHA	7	
223	Mongolia	Mongolia	7/1/91	7/1/91	1	5	OHA	1	
224	Provide Comfort II	Iraq	7/21/91	12/31/91	164	3	HIP	7,189	No-fly zone is independent of Provide Comfort II
225	Albania	Albania	8/1/91	8/30/91	30	5	OHA	4	
226	Mongolia	Mongolia	8/1/91	8/1/91	1	5	OHA	1	
227	Djibouti	Djibouti	8/1/91	8/1/91	1	5	OHA	1	
228	PRC	PRC	8/9/91	8/9/91	1	5	OHA	1	
229	Saudi Arabia	Saudi Arabia	9/1/91	9/1/91	1	2	SCR	0	
230	Ethiopia	Ethiopia	9/1/91	9/1/91	1	5	OHA	3	
231	Zaire	Zaire	9/1/91	9/30/91	30	1	NEO	41	
232	FSU	FSU	9/1/91	10/1/91	31	5	OHA	3	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
233	Romania	Romania	9/1/91	9/1/91	1	5	OHA	1	
234	Angola	Angola	10/1/91	11/1/91	32	5	OHA	6	
235	Mongolia	Mongolia	10/2/91	10/2/91	1	5	OHA	1	
236	Ukraine	Ukraine	10/23/91	10/30/91	8	5	OHA	2	
237	North Pole	Canada	11/1/91	11/1/91	1	5	OHA	1	
238	Somalia	Somalia	11/1/91	11/1/91	1	5	OHA	1	
239	Pakistan	Pakistan	11/1/91	11/1/91	1	5	OHA	1	
240	Angola	Angola	11/1/91	11/1/91	1	5	OHA	1	
241	Sierra Leone	Sierra Leone	11/1/91	11/1/91	1	5	OHA	1	
242	Guam	Guam	11/1/91	11/1/91	1	5	OHA	1	
243	Safe Harbor	Haiti	11/21/91	12/31/91	41	7	MMO	400	The missions/sorties measure appears to be high, even considering the possibility that these are flying hours
244	Cuba	Cuba	12/1/91	12/1/91	1	7	MMO	4	
245	Russia	Russia	12/1/91	12/1/91	1	5	OHA	2	
246	Liberia	Liberia	12/1/91	12/1/91	1	5	OHA	4	
247	Romania	Romania	12/1/91	12/1/91	1	5	OHA	1	
248	Marshall Islands	Marshall Is.	12/1/91	12/1/91	1	5	OHA	1	
249	Western Samoa	Samoa	12/1/91	12/1/91	1	5	OHA	9	
250	Haiti	Haiti	12/9/91	12/9/91	1	7	MMO	0	End date changed from 12/9/93 to reflect that in the IDA database. Counted as a corrected error
251	Romania	Romania	12/12/91	12/12/91	1	5	OHA	0	
252	Afghanistan	Afghanistan	12/15/91	12/15/91	1	5	OHA	0	
253	Albania	Albania	12/16/91	12/16/91	1	5	OHA	0	
254	Croatia	Croatia	12/17/91	12/17/91	1	5	OHA	0	
255	CIS	CIS	12/17/91	12/17/91	1	5	OHA	0	
256	Phillippines	Phillipines	12/17/91	12/17/91	1	5	OHA	0	
257	Armenia	Armenia	12/19/91	12/19/91	1	5	OHA	0	
258	Belarus	Belarus	12/19/91	12/19/91	1	5	OHA	0	
259	Safe Harbor	Haiti	1/1/92	12/31/92	366	7	MMO	400	
260	Provide Comfort II	Iraq	1/1/92	12/31/92	366	3	HIP	2,765	
261	Armenia	Armenia	1/9/92	1/9/92	1	5	OHA	0	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
262	Mongolia	Mongolia	1/23/92	1/30/92	8	5	OHA	1	
263	Afghanistan	Afghanistan	2/1/92	8/30/92	212	5	OHA	0	
264	Provide Hope I	FSU	2/10/92	2/26/92	17	5	OHA	65	
265	Provide Hope II	FSU	2/29/92	6/1/92	94	5	OHA	186	
266	UK	UK	3/1/92	3/1/92	1	2	SCR	1	
267	Turkey	Turkey	3/1/92	4/1/92	32	5	OHA	10	
268	Uzbekistan	Uzbekistan	4/1/92	4/1/92	1	5	OHA	5	
269	Bolivia	Bolivia	4/1/92	4/1/92	1	5	OHA	1	
270	Nicaragua	Nicaragua	4/1/92	4/1/92	1	5	OHA	0	
271	El Salvador	El Salvador	4/1/92	4/1/92	1	5	OHA	0	
272	Bosnia-Herzegovina	Bosnia	4/18/92	4/19/92	2	3	HIP	5	
273	Bosnia-Herzegovina	Bosnia-Herz	5/1/92	5/1/92	1	3	HIP	2	
274	Sinai Peninsula	Sinai Penin.	5/1/92	5/1/92	1	11	IP	0	
275	Sierra Leone	Sierra Leone	5/3/92	5/4/92	2	1	NEO	2	
276	Namibia Wolf	Namibia	5/28/92	5/28/92	1	11	IP	5	
277	Colombia	Colombia	7/1/92	7/4/92	4	999	Other	0	
278	Provide Promise	Bosnia	7/3/92	5/1/93	303	3	HIP	53	
279	Southern Watch	Iraq	8/1/92	12/31/92	153	6	NFZ	21,500	The same sortie figure problem here as with Elf One, a generic figure applied to each entry in the table, although the first entry only covers 5 months but generates the same number of sorties as the subsequent 12 month Southern Watch entries
280	Intrinsic Action	Kuwait	8/2/92	8/20/92	19	2	SCR	53	
281	Provide Transition	Angola	8/12/92	10/7/92	57	11	IP	326	
282	Provide Relief (Somalia)	Somalia	8/24/92	2/28/93	189	3	HIP	3,193	
283	Guam	Guam	8/28/92	9/12/92	16	5	OHA	59	
284	Chernobyl	Russia	9/1/92	9/2/92	2	5	OHA	1	
285	Lithuania	Lithuania	9/3/92	9/4/92	2	5	OHA	1	
286	Puerto Rico	Puerto Rico	9/4/92	9/4/92	1	5	OHA	1	
287	Impressive Lift I	Somalia	9/13/92	9/16/92	4	3	HIP	47	
288	Impressive Lift II	Somalia	9/21/92	9/29/92	9	3	HIP	47	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
289	Tajikistan	Tajikistan	10/1/92	10/1/92	1	1	NEO	1	
290	Deny Flight	Bosnia	10/1/92	12/31/92	92	6	NFZ	0	
291	Mongolia	Mongolia	10/1/92	10/2/92	2	5	OHA	1	
292	Liberia	Liberia	10/23/92	10/25/92	3	1	NEO	0	
293	Tajikistan	Tajikistan	10/25/92	10/25/92	1	1	NEO	0	
294	Armenia	Armenia	11/4/92	11/11/92	8	5	OHA	5	
295	Pakistan	Pakistan	12/6/92	12/20/92	15	5	OHA	6	
296	Restore Hope	Somalia	12/9/92	3/25/92		3	HIP	0	Negative duration deleted. Counted as an uncorrected error.
297	Restore Hope (Somalia)	Somalia	12/9/92	3/25/94	472	3	HIP	0	
298	Safe Harbor	Haiti	1/1/93	4/1/93	91	5	OHA	400	
299	Provide Comfort II	Iraq	1/1/93	12/31/93	365	3	HIP	2,765	
300	Southern Watch	Iraq	1/1/93	12/31/93	365	6	NFZ	21,500	
301	Provide Relief	Somalia	1/1/93	2/28/93	59	3	HIP	3,295	
302	Eritrean Presidential Evac	Eritrea/Israel	1/6/93	1/7/93	2	5	OHA	1	
303	Mongolia	Mongolia	2/1/93	2/2/93	2	5	OHA	1	
304	Bosnia	Bosnia	2/10/93	2/10/93	1	3	HIP	1	
305	Provide Refuge	Marshall Is.	2/13/93	3/9/93	25	5	OHA	9	
306	Ecuador	Ecuador	4/19/93	4/24/93	6	999	Other	0	
307	Continue Hope	Somalia	5/4/93	5/25/94	387	3	HIP	0	
308	JTF Somalia	Somalia	5/5/93	12/31/93	241	3	HIP	0	
309	Able Sentry	Macedonia	5/17/93	5/29/93	13	11	IP	24	
310	Cambodia	Cambodia	5/17/93	5/29/93	13	11	IP	29	
311	Mongolia	Mongolia	5/30/93	6/1/93	3	5	OHA	1	
312	UNPROFOR	Yugoslavia	7/5/93	12/31/93	180	3	HIP	0	
313	Somalia	Somalia	7/25/93	7/27/93	3	3	HIP	6	
314	Yugoslavia	Yugoslavia	8/1/93	8/1/93	1	2	SCR	1	
315	Deny Flight	Yugoslavia	8/1/93	12/31/93	153	6	NFZ	0	
316	Nepal	Nepal	8/11/93	8/15/93	5	5	OHA	6	
317	Provide Transition	Angola	8/12/93	8/12/93	1	11	IP	1	
318	Somalia	Somalia	8/25/93	8/27/93	3	3	HIP	6	
319	India	India	10/1/93	10/4/93	4	5	OHA	2	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
320	Mongolia	Mongolia	10/2/93	10/3/93	2	5	OHA	1	
321	Somalia	Somalia	10/5/93	10/13/93	9	3	HIP	225	
322	Somalia	Somalia	10/24/93	10/30/93	7	3	HIP	3	
323	UN Rotation	Nepal	10/24/93	10/24/93	1	10	LPO	3	
324	UK	UK	10/26/93	10/26/93	1	10	LPO	1	
325	Fijian Presidential Evac	Fiji	11/1/93	11/1/93	1	5	OHA	1	
326	Denton Amendment	Dominican Rep	11/9/93	11/9/93	1	5	OHA	3	
327	Denton Amendment	Venezuela/Equ	11/12/93	11/12/93	1	5	OHA	2	
328	Denton Amendment	Virgin Islands	11/19/93	11/19/93	1	5	OHA	1	
329	Denton Amendment	Honduras	12/7/93	12/7/93	1	5	OHA	2	
330	Denton Amendment	Guatemala	12/15/93	12/15/93	1	5	OHA	1	
331	Provide Comfort II	Iraq	1/1/94	12/31/94	365	3	HIP	2,765	
332	Southern Watch	Iraq	1/1/94	12/31/94	365	6	NFZ	21,500	
333	JTF Somalia	Somalia	1/1/94	2/28/94	59	3	HIP	0	
334	UNPROFOR	Yugoslavia	1/1/94	12/31/94	365	3	HIP	0	
335	Deny Flight	Yugoslavia	1/1/94	12/31/94	365	6	NFZ	0	
336	Denton Amendment	Belize	1/17/94	1/17/94	1	5	OHA	1	
337	Mongolia	Mongolia	1/30/94	2/2/94	4	5	OHA	1	
338	Denton Amendment	Nicaragua	2/1/94	2/1/94	1	5	OHA	1	
339	Denton Amendment	Guatemala	2/4/94	2/4/94	1	5	OHA	2	
340	Mongolia	Mongolia	4/1/94	4/2/94	2	5	OHA	1	
341	Rwanda Stage 1	Rwanda	4/10/94	4/14/94	5	1	NEO	16	
342	Burundi	Burundi	4/22/94	4/23/94	2	1	NEO	0	
343	Denton Amendment	Nicaragua	4/22/94	4/22/94	1	5	OHA	1	
344	Tanzania	Tanzania	5/1/94	5/1/94	1	5	OHA	13	
345	Liberia	Yemen	5/1/94	5/1/94	1	1	NEO	8	This is in Yemen, not Liberia. Counted as a corrected error.
346	Support Hope	Zaire	5/1/94	9/17/94	140	5	OHA	1,124	
347	Laos	Laos	5/1/94	5/4/94	4	5	OHA	1	
348	Denton Amendment	Calcutta	5/2/94	5/2/94	1	5	OHA	1	
349	Denton Amendment	Guatemala	5/6/94	5/6/94	1	5	OHA	2	
350	Yemen NEO	Yemen	5/7/94	5/14/94	8	1	NEO	0	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
351	Rwanda/Burundi	Rwanda	5/11/94			5	OHA	700	Missing end date. Counted as an uncorrected error
352	Sea Signal	Cuba	5/26/94	5/28/94	3	7	MMO	0	
353	Mongolia	Mongolia	5/30/94	5/31/94	2	5	OHA	1	
354	Sea Signal	GTMO, Cuba	6/1/94	9/8/94	100	7	MMO	0	
355	Uganda	Uganda	6/22/94	6/30/94	9	5	OHA	7	
356	Chernobyl	Ukraine	6/26/94	6/26/94	1	5	OHA	1	
357	Hurricane John	Johnston Is	7/1/94	9/30/94	92	5	OHA	31	
358	Distant Haven	Surinam	7/1/94	12/31/94	184	5	OHA	9	
359	Denton Amendment	Honduras	7/1/94	7/2/94	2	5	OHA	2	
360	Denton Amendment	Puerto Rico	7/8/94	7/8/94	1	5	OHA	2	
361	Able Sentry	Macedonia	7/12/94	7/20/94	9	11	IP	30	
362	Denton Amendment	Honduras	7/15/94	7/15/94	1	5	OHA	1	
363	Dominican Republic	Domin Repub	8/7/94	10/23/94	78	7	MMO	0	
364	Denton Amendment	Honduras	8/15/94	8/15/94	1	5	OHA	0	
365	Deny Flight	Yugoslavia	8/23/94	8/23/94	1	6	NFZ	0	
366	Save Haven	Panama	8/26/94	12/31/94	128	7	MMO	0	
367	Haiti	Haiti	9/1/94	9/1/94	1	9	INT	1	
368	Uphold/Restore Dem.	Haiti	9/14/94	12/31/94	109	10	LPO	1,620	
369	Safe Passage	Cuba	9/19/94	3/31/95	194	7	MMO	127	
370	Mongolia	Mongolia	10/1/94	10/2/94	2	5	OHA	1	
371	Vigilant Warrior	Kuwait	10/2/94	12/31/94	91	8	LCR	0	
372	Project Sapphire	Kazakstan	10/9/94	11/23/94	46	999	Other	6	
373	Vladivostok	Russia	10/30/94	10/30/94	1	5	OHA	1	
374	North Korea	South Korea	11/30/94	11/30/94	1	999	Other	1	
375	Safe Passage	Cuba	12/1/94	12/3/94	3	7	MMO	0	
376	Counter-Drug Ops	Central America	1/1/95	12/31/95	365	999	Other		
377	UNISOM II	Somalia	1/7/95	3/24/95	77	3	HIP	0	
378	Safe Passage	Panama-Cuba	2/1/95	2/20/95	20	7	MMO	0	
379	HAITI Deployment	Nepal	2/3/95	2/10/95	8	10	LPO	0	
380	Safe Border	Peru/Ecuador	3/15/95	11/10/95	241	11	IP	5	
381	Ukraine (Provide Hope)	Ukraine	4/7/95	4/7/95	1	5	OHA	0	

No.	Mission Name	Country	Start Date	End Date	Duration	SSC #	SSC Type	Missions / Sorties / Hours	Comments
382	Mongolia	Mongloia	4/11/95	4/11/95	1	5	OHA	0	
383	Zaire	Zaire	5/11/95	5/11/95	1	5	OHA	1	
384	Scott O'Grady Rescue Suppo	Bosnia	6/8/95	6/8/95	1	2	SCR	0	
385	Haitian Support	Haiti	6/28/95	6/28/95	1	10	LPO	3	
386	Quick Lift	Croatia	6/30/95	7/4/95	5	10	LPO	80	
387	Vigiliant Sentinel	Saudi Arabia	8/1/95	8/30/95	30	2	SCR	0	
388	Croatia	Croatia	8/13/95	8/13/95	1	5	OHA	1	
389	Southern Watch/AEF I	Bahrain	8/14/95	10/13/95	61	2	SCR	0	
390	Tadzhikistan	Tadzhikistan	8/17/95	8/17/95	1	5	OHA	1	
391	Deliberate Force	Bosnia	8/30/95	9/20/95	22	9	INT	1,211	
392	Rwanda	Rwanda	9/6/95	9/6/95	1	5	OHA	1	
393	Croatia	Croatia	9/6/95	9/6/95	1	5	OHA	1	
394	Turkey	Turkey	9/7/95	9/7/95	1	3	HIP	2	
395	Carribean Express	Caribbean	9/16/95	10/10/95	25	5	OHA	212	
396	Vietnam	Vietnam	10/3/95	10/3/95	1	5	OHA	1	
397	Joint Endeavor: Surveillance	Bosnia	12/1/95	12/31/95	31	10	LPO	97	
398	Joint Endeavor: Airlift	Bosnia	12/4/95	12/31/95	28	10	LPO	1,365	
399	Joint Endeavor: Airlift	Bosnia	12/5/95	1/19/96	46	10	LPO	1,365	
400	Assured Response	Liberia	4/9/96	4/14/96	6	1	NEO	68	
401	Liberia	Liberia	4/9/96	4/30/96	22	1	NEO	0	
402	AEF II	Jordan	4/12/96	6/26/96	76	2	SCR	918	
403	Central African Republic	CAR	5/23/96	5/23/96	1	1	NEO	60	
404	AEF III	Qatar	7/7/96	8/21/96	46	2	SCR	1,367	
405	Desert Strike	Kuwait	9/12/96	10/21/96	40	8	LCR	0	
406	Ecuador	Ecuador	10/22/96	10/29/96	8	5	OHA	10	

IDA Code Book and Database

IDA Database Coding

No:	A record number from 1-103 corresponding to a text description in the documentation accompanying the IDA database. Events 101, 102, and 103 where added for the purpose of this study and were not included in the original IDA database and consequently lack an accompanying text description.
Location:	The location in which the operation was focused. It should be noted that operations may be spread across more than one state, for example, flying AWACS to Chad to observe activities in Sudan. Other operations may occur not in states but in international bodies of water.
Date:	The date the operation began in a year/month format.
Force Size:	A description of the military force size used in the event and categorized as either Min (Minimum), Mod (Moderate), or Maj (Major). There is a rough correspondence between the force level categorization used in the original IDA study and this study. This category should assist the reader in better understanding the scale of the event.
SSC #:	IDA's coding of the event based upon criteria determined by the Office of the Secretary of Defense. For a complete discussion of SSC coding see the introduction section to the coding book.
SSC Type:	Alphabetic characters corresponding to the SSC # and provided for the reader to more easily convert the numeric coding to a specific mission type to a plain English description. Both numeric and alphabetic coding are used as each offers advantages in working with the data.
Duration:	The original IDA database contained only categories of duration as opposed to a precise duration. The ranges were <30 days, 31-90 days, 91-180 days, and >180 days.
Estimated Duration:	For this study IDA desired a more precise duration than that contained in the original IDA database and consequently added this measure to the database. For those operations less than 180 days the middle value in

the duration category was selected as the best average value. For example, an operation previously listed as being <30 days was considered to be on average 15 days in the recent study. Although not a perfect measure this technique does provide a common frame of reference across all four databases. Given the open-ended nature of the final duration category, operations >180 days were given a precise end date based on information contained in the original database as well as outside sources.

Comments: Comments concerning the addition/subtraction of data to the database, the validity of data, notes about a variety of errors, any modifications to the database, and other issues of note are recorded here. These are IDA's comments and not those of the original authors.

No.	Location	Date	Force Size	SSC #	SSC Type	Duration	Estimated Duration	Comments
1	Egypt	83-2	Mod	2	SCR	<30	15	
2	Honduras	83-2	Maj	2	SCR	<30	15	
3	Thailand	83-4	Min	2	SCR	<30	15	
4	Honduras, et al.	83-6	Mod	2	SCR	<180	135	
5	South China Sea	83-7	Min	3	HIP	<30	15	
6	Chad, Sudan	83-8	Mod	2	SCR	<30	15	
7	Honduras	83-8	Maj	2	SCR	<30	15	
8	Lebanon	83-8	Mod	2	SCR	<180	135	
9	Korea	83-9	Mod	3	HIP	<30	15	
10	Grenada	83-10	Mod	9	INT	<30	15	This event was reinterpreted to include Operation Urgent Fury and not just the events immediately preceding it
11	Iran	83-10	Mod	2	SCR	<180	135	
12	Korea	83-10	Mod	2	SCR	<30	15	
13	Hormuz Straight	84-2	?	2	SCR	<30	15	
14	El Salvador, et al.	84-3	Mod	2	SCR	>180	264	
15	Egypt	84-3	?	2	SCR	<30	15	
16	Iran	84-4	Mod	2	SCR	>180	245	
17	Saudi Arabia	84-6	?	2	SCR	?		Duration data missing - counted as uncorrected error
18	Gulf of Sidra	84-6	Min	2	SCR	<30	15	
19	Sudan	84-8	?	2	SCR	<30	15	
20	Arabian Sea, et al.	84-8	Min	2	SCR	<90	60	
21	Lebanon	84-9	Min	2	SCR	<90	60	
22	Cuba	84-11	Min	2	SCR	<30	15	
23	Lebanon	85-3	Mod	1	NEO	<90	60	
24	Japan	85-4	Mod	2	SCR	>180	200	Estimated duration data not contained in the original database, information added and counted as corrected error
25	Lebanon	85-6	Mod	2	SCR	<30	15	
26	Mexico	85-9	Min	5	OHA	<30	15	
27	Iran	85-9	Min	2	SCR	<30	15	
28	Mediterranean	85-10	Mod	2	SCR	<30	15	
29	Malta	85-11	Mod	2	SCR	<30	15	
30	Yemen	86-1	?	1	NEO	<30	15	
31	Gulf of Sidra	86-1	Maj	2	SCR	<90	60	
32	Iran	86-1	Min	2	SCR	<180	135	
33	Honduras	86-3	Min	2	SCR	<30	15	

No.	Location	Date	Force Size	SSC #	SSC Type	Duration	Estimated Duration	Comments
34	Mediterranean	86-4	Maj	8	LCR	<30	15	
35	Gulf of Oman	86-5	Min	2	SCR	<30	15	
36	Bolivia	86-7	Min	999	Other	<180	135	
37	Cyprus, Lebanon	86-9	Mod	2	SCR	<30	15	
38	Korea	86-9	Min	2	SCR	<30	15	
39	China	86-11	Min	999	Other	<30	15	
40	Honduras	86-12	Min	2	SCR	<30	15	
41	Arabian Sea, et al.	87-1	Mod	2	SCR	>180	579	
42	Lebanon	87-2	Min	2	SCR	<30	15	
43	Honduras	87-3	Maj	8	LCR	<30	15	
44	Persian Gulf	87-7	Min	2	SCR	>180	450	
45	Haiti	88-1	Min	1	NEO	<30	15	
46	Black Sea	88-2	Min	2	SCR	<30	15	
47	Honduras	88-3	Maj	2	SCR	<90	60	
48	Panama	88-4	Maj	2	SCR	>180	630	
49	Korea	88-9	Maj	8	LCR	<30	15	
50	Burma	88-9	Min	1	NEO	<30	15	
51	Caribbean, et al.	88-9	Min	999	Other	>180	2100	
52	Maldives	88-11	Mod	2	SCR	<30	15	
53	Lebanon	89-2	Mod	8	LCR	<90	60	Coded as large show of force due to use of CVBG and ARG
54	Panama	89-5	Maj	2	SCR	>180	240	
55	South China Sea	89-5	Min	3	HIP	<180	135	
56	China	89-6	Mod	2	SCR	<30	15	
57	USSR	89-8	Min	2	SCR	<30	15	
58	Iran, et al.	89-8	Maj	8	LCR	<90	60	
59	Virgin Islands	89-9	Maj	5	OHA	<90 ?	60	Duration data clarified - counted as a corrected error
60	Bolivia, et al.	89-9	Mod	999	Other	>180	1800	
61	Philippines	89-12	Min	2	SCR	<30	15	
62	South China Sea	90-5	Min	3	HIP	<90	60	
63	Liberia	90-6	Min	1	NEO	>180	230	
64	Persian Gulf	90-7	Min	2	SCR	<30	15	
65	Philippines	90-7	Min	5	OHA	<30	15	
66	Southwest Asia	90-8	Maj	999	Other	>180	1470	
67	Somalia	91-1	Min	1	NEO	<30	15	
68	Iraq	91-3	Maj	8	LCR	<180 ?	135	Duration data clarified - counted as a corrected error

No.	Location	Date	Force Size	SSC #	SSC Type	Duration	Estimated Duration	Comments
69	Iraq, Turkey	91-4	Maj	3	HIP	<90	60	
70	Bolivia	91-4	Mod	999	Other	<180 ?	135	Duration data clarified - counted as a corrected error
71	Cuba	91-5	Min	7	MMO	>180	200	Estimated duration data not contained in the original database, information added and counted as corrected error
72	Bangladesh	91-5	Mod	5	OHA	<30	15	
73	Turkey	91-6	Maj ?	3	HIP	>180	1170	
74	Philippines	91-6	Mod	1	NEO	<30	15	
75	Saudi Arabia	91-9	?	2	SCR	?		Duration data missing - counted as uncorrected error
76	Zaire	91-9	Min	1	NEO	<30	15	
77	Russia, et al.	92-2	Min	3	HIP	<30	15	
78	United Kingdom	92-3	Min	2	SCR	<30 ?	15	Duration data clarified - counted as a corrected error
79	Bosnia	92-4	Min	3	HIP	>180	870	
80	Italy	92-4	Min	5	OHA	<30	15	
81	Colombia	92-7	Min	999	Other	<30	15	
82	Adriatic Sea	92-7	Min	7	MMO	>180	780	
83	Angola	92-8	Min	10	LPO	<30	15	
84	Iraq	92-8	Mod	6	NFZ	>180	750	
85	Kenya, Somalia	92-8	Mod	3	HIP	<90	60	
86	Iraq	92-12	Mod	2	SCR	<30	15	
87	Somalia	92-12	Maj	3	HIP	>180	480	
88	Kuwait	93-1	Mod	2	SCR	<90 ?	60	Duration data clarified - counted as a corrected error
89	Haiti	93-1	Min	7	MMO	>180	600	
90	Bosnia	93-4	Maj	6	NFZ	>180	510	
91	Macedonia	93-6	Mod	11	IP	>180	460	
92	Somalia	93-10	Maj	3	HIP	<180	135	
93	Haiti	93-10	Min	7	MMO	>180	330	
94	Colombia	93-12	Min	999	Other	<90	60	
95	South Korea	94-3	Mod	2	SCR	<90	60	
96	Burundi	94-4	Min	1	NEO	<30	15	
97	Caribbean	94-5	Min	2	SCR	<90	60	
98	Zaire	94-7	Maj	3	HIP	<90	60	
99	Cuba	94-8	Min	7	MMO	<90	60	
100	Haiti	94-9	Maj	9	INT	<90	60	

No.	Location	Date	Force Size	SSC #	SSC Type	Duration	Estimated Duration	Comments
101	Just Cause	89-12	Maj	9	INT	<90	60	Event added to database to reflect earlier exclusion of events with force as the main
102	El Dorado Canyon	86-4	Maj	8	LCR	<30	15	Event added to database to reflect earlier exclusion of events with force as the main
103	MFO	83-1	Mod	11	IP	>180	4290	This event was added. This event started before the database was begun and thus has a shortened duration

JWAC Code Book and Database

JWAC Database Coding

Operation Name:	Either the official military operation name for a given event (e.g. Eagle Pull) or a short phrase describing the event (e.g. Lebanon Evacuation).
Country Name:	The name of the country in which the operation was focused. It should be noted that operations may be spread across several countries, for example, evacuating refugees from South Vietnam, temporarily holding them in the Philippines and eventually resettling them in the United States. Other operations may occur not in countries but in international bodies of water.
JWAC Primary Op Type:	A classification of the event provided by the authors of the JWAC database. IDA coding of an event does not correspond to the JWAC categories. Precise definitions of the categories used by the authors of the JWAC database are not available. JWAC categories are as follows: Civil Affairs, Disaster relief, Drug Interdiction, Evacuation, Foreign Internal Defense, Humanitarian Assistance, Interdiction of Sea Lanes, Internal Defense, Logistics, Peace Operations, Relief, Rescue, and Security. This category complements the often undescriptive operation names.
Start Date:	The date the operation began in a day/month/year format.
End Date:	The date the operation ended in a day/month/year format.
Duration:	The length of the event. This figure is computed by subtracting the start date from the end date and adding one day. This provides a consistent formula for dealing with events that begin and end on the same day and would otherwise result in a zero duration. This figure is derived by a formula in the spreadsheet. The original JWAC duration calculation used the formula of end date minus start date, and modified the formula by adding one day when the duration would otherwise have resulted in a zero duration. In order to correct for this inconsistency, IDA adopted the above mentioned formula ((end date - start date) +1 day) not only in the JWAC database but across all four databases.

SSC #:	IDA's coding of the event based upon criteria determined by the Office of the Secretary of Defense. For a complete discussion of SSC coding see the introduction section to the coding book.
SSC Type:	Alphabetic characters corresponding to the SSC # and provided for the reader to more easily convert the numeric coding to a specific mission type to a plain English description. Both numeric and alphabetic coding are used as each offers advantages in working with the data. Because the SSC Type is determined by a formula converting the numeric values in the SSC # to alphabetic characters, in those operations which lack a SSC #, the value of "FALSE" appears. This has no significance beyond that of missing data.
Comments:	Comments concerning the addition/subtraction of data to the database, the validity of data, notes about a variety of errors, any modifications to the database, and other issues of note are recorded here. These are IDA's comments and not those of the original authors.

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
Cyprus Unrest	Greece	Evacuation	18-Jan-75	21-Jan-75	4	1	NEO	
EAGLE PULL	Cambodia	Evacuation	01-Feb-75	01-May-75	90	1	NEO	
Ethiopian Civil War	Ethiopia	Evacuation	03-Feb-75	06-Feb-75	4	1	NEO	
FREQUENT WIND	Vietnam, Socialist Republic of	Evacuation	18-Apr-75	29-Apr-75	12	1	NEO	
Indochinese Resettlement Operations	U.S.A.	Humanitarian assistance	22-Apr-75	01-Nov-75	194	3	HIP	Coded the same as the CAA database but CAA only reflects the Army role, consideration should be given to coding this as maritime migrant operation or OCONUS disaster relief
Lebanon Evacuation	Lebanon	Evacuation	01-Aug-75	01-Aug-76	367	1	NEO	
Polisario Rebels	Morocco	Internal defense	05-Jan-76	22-Jan-76	18	2	SCR	
Guatemala Earthquake	Guatemala	Disaster relief	01-Feb-76			5	OHA	Missing end date. Counted as an uncorrected error
LION ASSIST	Italy	Disaster relief	06-May-76	13-May-76	8	5	OHA	
Kenya-Uganda	Kenya	Internal defense	08-Jul-76	27-Jul-76	20	2	SCR	
Military Assistance to Tunisia	Tunisia	Internal defense	27-Jul-76	21-Aug-76	26	2	SCR	
Korea/DMZ	Korea, Republic of	Internal defense	18-Aug-76	21-Aug-76	4	2	SCR	
Ugandan Restrictions on Americans	Uganda	Internal defense	25-Feb-77	03-Mar-77	7	2	SCR	
Ogaden War	Somalia	Internal defense	01-Feb-78	01-Apr-78	60	2	SCR	
Airlift Zaire	Zaire	Logistics	18-May-78	01-Jun-78	15	2	SCR	
Sea of Okhotsk	Japan	Interdiction of sea lanes	15-Jun-78	24-Jun-78	10	2	SCR	
Afghanistan Unrest	Afghanistan	Internal defense	01-Jul-78	01-Aug-78	32	2	SCR	
Nicaragua Ship Surveillance	Nicaragua	Internal defense	16-Sep-78	01-Oct-78	16	2	SCR	
Reverend Jim Jones Mass Suicide	Guyana	Civil affairs	18-Nov-78	03-Dec-78	16	3	HIP	
Iranian Revolution	Iran	Evacuation	06-Dec-78	01-Mar-79	86	1	NEO	End date changed from 1978 to 1979 to reflect accurate date. Counted as a corrected error
China-Vietnam	China (PRC)	Security	25-Feb-79	03-Mar-79	7	2	SCR	
US Monitoring of North-South Yemen Fighting	Yemen Arab Republic	Security	06-Mar-79	06-Jun-79	93	2	SCR	
Nicaraguan Revolution	Nicaragua	Evacuation	01-Jul-79	01-Aug-79	32	1	NEO	
Soviet Troops in Cuba	Cuba	Security	02-Oct-79	17-Nov-79	47	8	LCR	
Afghan/Iran Hostages	Iran	Security	09-Oct-79	21-Jan-81	471	8	LCR	
Park-Chung Hee - DEFCON 3	Korea, Republic of	Security	26-Oct-79	03-Nov-79	9	2	SCR	

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
Korea Unrest	Korea, Republic of	Security	27-May-80	29-Jun-80	34	2	SCR	
Iran-Iraq War: AWACS to Saudi Arabia	Saudi Arabia	Security	30-Sep-80	02-Feb-81	126	2	SCR	
Naval Visit to Agadir	Morocco	Security	29-Jan-81	07-Feb-81	10	2	SCR	
Liberia/US Military Training Exercises & Port Visit	Liberia	Internal defense	01-Apr-81	15-Apr-81	15	2	SCR	
Syria-Israel	Syria	Evacuation	03-May-81	14-Sep-81	135	1	NEO	
Naval Exercises in the Gulf of Sidra	Libya	Security	01-Aug-81	20-Aug-81	20	8	LCR	There were two aircraft carriers according to CNA CRM 90-246
Sadat-Sudan	Sudan	Security	07-Oct-81	31-Oct-81	25	2	SCR	A CVBG and an ARG sent to intimidate Libya. Under S&R rules, this is a *small* show of force.
Central America: USN ships Caron/Deyo	El Salvador	Security	16-Oct-81	02-Dec-81	48	2	SCR	
Airlift of Zairian Material and Forces to Chad	Chad	Logistics	01-Nov-81			2	SCR	Missing end date. Counted as an uncorrected error
MFO Sinai	Egypt	Peace operations	25-Apr-82	15-Apr-95	4,739	11	IP	Added end date cutoff of 15-Apr-95 consistent with the last entry in this database. Counted as a corrected error
Israell Invasion	Lebanon	Evacuation	08-Jun-82	22-Jul-82	45	1	NEO	
Lebanon MNF-1	Lebanon	Peace operations	10-Aug-82	08-Sep-82	30	10	LPO	
Lebanon MNF-2	Lebanon	Peace operations	22-Sep-82	11-Feb-84	508	10	LPO	
Aircraft Deployed to Egypt	Egypt	Security	14-Feb-83	24-Feb-83	11	2	SCR	
Bahamas	Bahamas	Drug interdiction	01-May-83			999	Other	Missing end date. Counted as an uncorrected error
Turks	Bahamas	Drug interdiction	01-May-83			999	Other	Missing end date. Counted as an uncorrected error
Honduras-Nicaragua	Honduras	Internal defense	14-Jun-83	22-Oct-83	131	2	SCR	
Libya-Chad	Chad	Security	01-Aug-83	16-Aug-83	16	2	SCR	
Libya-Sudan	Sudan	Security	06-Aug-83	16-Aug-83	11	2	SCR	
Army Target Acquisition Battery to Lebanon	Lebanon	Peace operations	13-Aug-83	15-Dec-83	125	10	LPO	
Marine Barracks Bomb	Lebanon	Evacuation	29-Aug-83	14-Feb-84	170	1	NEO	
KAL 007	Korea, Republic of	Relief	01-Sep-83	06-Nov-83	67	5	OHA	
Iran-Iraq		Security	08-Oct-83	10-Jan-84	95	2	SCR	
Korea-Burma	Korea, Republic of	Security	11-Oct-83	13-Oct-83	3	2	SCR	
Grenada	Grenada	Evacuation	20-Oct-83	11-Nov-83	23	9	INT	

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
El Salvador Elections	El Salvador	Security	13-Mar-84	01-Dec-84	264	2	SCR	
AWACS to Saudi Arabia	Saudi Arabia	Security	01-Apr-84	01-Dec-84	245	2	SCR	
Continuation of Aircraft Carrier in North Arabian Sea		Security	01-Apr-84	01-Dec-84	245	2	SCR	
Red Sea Mines	Egypt	Relief	03-Aug-84	17-Sep-84	46	2	SCR	
JOINT TASK FORCE BRAVO	Honduras	Foreign internal defense	08-Aug-84			2	SCR	Missing end date. Counted as an uncorrected error
Beirut Embassy	Lebanon	Security	21-Sep-84	01-Dec-84	72	2	SCR	
Disables US Merchant Ship	Cuba	Rescue	01-Nov-84	02-Nov-84	2	2	SCR	
Saudi Hijacking	Saudi Arabia	Security	06-Nov-84	06-Nov-84	1	2	SCR	
Beirut Evacuation	Lebanon	Evacuation	01-Mar-85	01-Apr-85	32	1	NEO	
Drug Seizure		Drug interdiction	01-Apr-85			999	Other	Missing end date. Counted as an uncorrected error
Universal Trek '85	Honduras	Internal Defense	23-Apr-85			8	LCR	Missing end date. Counted as an uncorrected error
TWA 847 Hijacking	Lebanon	Security	14-Jun-85	24-Jul-85	41	2	SCR	
Iranian Seizures of Merchant Vessels		Security	13-Sep-85	01-Oct-85	19	2	SCR	
Achille Lauro	Egypt	Security	07-Oct-85	10-Oct-85	4	2	SCR	
Egypt Air Hijacking	Egypt	Security	23-Nov-85	25-Nov-85	3	2	SCR	
TASK FORCE CROSBY	Canada	Logistics	12-Dec-85	12-Jan-86	32	5	OHA	
Yemen Civil War	Yemen People's Republic	Evacuation	01-Jan-86	01-Feb-86	32	1	NEO	
Persian Gulf Escort		Security	12-Jan-86	01-Jun-86	141	2	SCR	
ATTAIN DOCUMENT	Libya	Security	26-Jan-86	30-Jan-86	5	8	LCR	This was a multi-CVBG exercise. Has therefore been coded as a large show of force (LSF) consistent with SSC coding in IDA database.
Airlift From France to Chad	Chad	Logistics	01-Feb-86	01-Mar-86	29	2	SCR	
ATTAIN DOCUMENT II	Libya	Security	12-Feb-86	15-Feb-86	4	8	LCR	This was a multi-CVBG exercise. Has therefore been coded as a large show of force (LSF) consistent with SSC coding in IDA database.
Lebanon Hostages	Lebanon	Evacuation	01-Mar-86	01-Mar-86	1	1	NEO	
ATTAIN DOCUMENT III	Libya	Security	23-Mar-86	29-Mar-86	7	8	LCR	This was a multi-CVBG exercise. Has therefore been coded as a large show of force (LSF) consistent with SSC coding in IDA database.
Pakistan Hijacking		Security	01-Sep-86	01-Sep-86	1	2	SCR	

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
Military Police Overseas Deployment Training	Philippines	Security	07-Dec-86	12-Dec-89	1,102	2	SCR	
BLAZING TRAILS	Honduras	Civil affairs	12-Dec-86	31-Aug-88	629	2	SCR	
Military Police Overseas Deployment Training	Panama	Security	31-Jan-87	20-Dec-89	1,055	2	SCR	
Hostages in Lebanon	Lebanon	Evacuation	01-Feb-87	01-Mar-87	29	1	NEO	
BLAZING TRAILS	Ecuador	Relief	06-Mar-87	01-Dec-87	271	2	SCR	
EARNEST WILL	Kuwait	Interdiction of sea lanes	01-Jul-87	01-Aug-88	398	2	SCR	
PHIBRON	Haiti	Security	01-Jan-88	01-Feb-88	32	1	NEO	Coded as a NEO in the IDA database because they stood by in case NEO needed during coup
GOLDEN PHEASANT	Honduras	Foreign internal defense	17-Mar-88	31-Mar-88	15	2	SCR	
TASK FORCE HAWK	Panama	Security	18-Mar-88	20-Dec-89	643	2	SCR	
Military Police and Logistical Assistance	Panama	Security	18-Mar-88	10-Aug-88	146	2	SCR	
FAST MCSFCO	Panama	Security	01-Apr-88	01-May-88	31	2	SCR	Coded as SCR to be consistent with other Panama pre-Just Cause activities. This deployment was needed because of increased security threats due to our attempts to remove Noriega.
Military Police Assistance	Panama	Security	08-Aug-88	20-Dec-89	500	2	SCR	
Burma Unrest	Burma	Evacuation	01-Sep-88	01-Oct-88	31	1	NEO	
1988 Summer Olympics	Korea, Republic of	Security	01-Sep-88	01-Oct-88	31	8	LCR	
Fuertes Caminos	Honduras	Foreign internal defense	01-Oct-88	01-Sep-89	336	2	SCR	Information added based on CAA end date. Counted as a corrected error
Maldives Coup	Maldives	Security	17-Nov-88	17-Nov-88	1	2	SCR	
Lebanon Civil War	Lebanon	Evacuation	01-Feb-89	01-Mar-89	29	8	LCR	
UN Operations in Nambia	South Africa	Logistics	01-Mar-89			10	LPO	Missing end date. Counted as an uncorrected error
NIMROD DANCER	Panama	Security	11-May-89	20-Dec-89	224	2	SCR	
Panama Elections	Panama	Security	11-May-89	01-Jul-89	52	2	SCR	
China Civil Unrest	China (PRC)	Security	01-Jun-89	01-Jul-89	31	2	SCR	
Hostages in Lebanon	Lebanon	Security	01-Aug-89	01-Sep-89	32	8	LCR	
POPLAR TREE	El Salvador	Rescue	01-Nov-89				FALSE	Missing end date. Counted as an uncorrected error

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
JTF-Philippines	Philippines	Internal Defense	01-Dec-89	07-Dec-89	7	2	SCR	
JUST CAUSE	Panama	Peace operations	20-Dec-89	03-Jan-90	15	9	INT	
Afghan Refugees	Afghanistan	Relief	01-Jan-90	01-Dec-92	1,066	3	HIP	
PROVEN FORCE	Turkey	Peace operations	01-Jan-90				FALSE	Missing end date. Counted as an uncorrected error
PROMOTE LIBERTY	Panama	Civil Affairs	03-Jan-90			10	LPO	Missing end date. Counted as an uncorrected error
Medical Supplies, Blankets, Clothing	Paraguay	Relief	01-Feb-90			5	OHA	Coded as overseas humanitarian assistance (OHA) due to permissive nature of disaster relief. Missing end date. Counted as an uncorrected error
Medical Supplies	Ivory Coast	Relief	01-Feb-90	01-Feb-90	1	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
Western Somoa	U.S.A.	Relief	06-Feb-90	14-Feb-90	9	5	OHA	
Airlift Tree Seedlings	Pakistan	Humanitarian assistance	01-Mar-90	01-Mar-90	1	5	OHA	
GHOST ZONE	Bolivia	Drug interdiction	01-Mar-90			999	Other	Missing end date. Counted as an uncorrected error
Transport of Hostages	Syria	Logistics	01-Apr-90	01-Apr-90	1	5	OHA	
Asthma Victim	Peru	Humanitarian assistance	01-Jun-90	01-Jun-90	1	5	OHA	
Earthquake Relief	Philippines	Relief	01-Jul-90	30-Jul-90	30	5	OHA	End date based on DFI information but may count only USAF dates of involvement; IDA database includes US Navy personnel, duration less than 30 days. Counted as a corrected error
GREEN SWEEP	Bolivia	Drug interdiction	01-Jul-90	01-Aug-90	32	999	Other	
Iraqi Pressure on Kuwait	Kuwait	Security	24-Jul-90	01-Aug-90	9	2	SCR	
SHARP EDGE	Liberia	Evacuation	05-Aug-90	21-Aug-90	17	1	NEO	The end date differs by five months from that of IDA's database
Relief Supplies	Jordan	Humanitarian assistance	01-Sep-90	01-Sep-90	1	5	OHA	
TYPHOON OWEN	U.S.A.	Relief	01-Dec-90			5	OHA	Missing end date. Counted as an uncorrected error
Rudderless Boat	Mexico	Humanitarian assistance	01-Dec-90	01-Dec-90	1	5	OHA	
Sudan Embassy Evacuation	Sudan	Evacuation	26-Dec-90	15-Jan-91	21	1	NEO	
Medical Supplies	Nicaragua	Relief	01-Jan-91			5	OHA	The JWAC end date (5/1/92) seems likely to be an error, and has been deleted. Counted as an uncorrected error

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
Counter Drug Operations		Drug interdiction	01-Jan-91			999	Other	Missing end date. Counted as an uncorrected error
Somalia Evacuation	Somalia	Evacuation	02-Jan-91	10-Jan-91	9	1	NEO	
Liberia Civil War Relief	Liberia	Relief	01-Feb-91	01-Feb-91	1	3	HIP	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
Medical Supplies	Laos	Relief	01-Feb-91	01-Feb-91	1	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
Relief Supplies	Sierra Leone	Relief	01-Feb-91	01-Nov-91	274	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
AMC flies 600 French Troops	Central African Republic	Logistics	26-Feb-91	27-Feb-91	2	2	SCR	
Food and Clothing	Armenia	Relief	01-Mar-91	01-Mar-91	1	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
Firefighting Equipment	Kuwait	Relief	01-Mar-91	01-Jun-91	93	5	OHA	
Medical Supplies	Rumania	Relief	01-Mar-91	01-Dec-91	276	5	OHA	
Airlift of Refugees	Iraq	Evacuation	01-Apr-91	01-Apr-91	1	3	HIP	
PROVIDE COMFORT	Iraq	Humanitarian assistance	01-Apr-91	01-Jun-93	793	3	HIP	
Peruvian Cholera Epidemic	Peru	Relief	01-Apr-91	01-Apr-91	1	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
PROVIDE COMFORT	Turkey	Humanitarian assistance	06-Apr-91	01-Jul-91	87	3	HIP	
Medical Supplies	Ecuador	Relief	01-May-91	01-May-91	1	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
POSITIVE FORCE	Kuwait	Peace operations	01-May-91	01-Jun-91	32		FALSE	
SEA ANGEL	Bangladesh	Humanitarian assistance	12-May-91	13-Jun-91	33	5	OHA	
Food	Kenya	Relief	01-Jun-91	01-Jun-91	1	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
Medical Supplies and Food	Ethiopia	Relief	01-Jun-91	30-Jun-91	30	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
Relief Supplies	Kuwait	Relief	01-Jun-91	01-Jun-91	1	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
FIERY VIGIL	Philippines	Evacuation	16-Jun-91	26-Jun-91	11	1	NEO	
PROVIDE COMFORT II	Turkey	Humanitarian assistance	01-Jul-91	31-Dec-94	1,280	3	HIP	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
Food	Albania	Relief	01-Jul-91	01-Mar-92	245	5	OHA	
Medical Supplies	Mongolia	Relief	01-Jul-91	01-Jul-91	1	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
Chad Epidemic Relief	Chad	Relief	01-Jul-91	02-Jul-91	2	5	OHA	
GTMO - GUANTANAMO BAY	Haiti	Humanitarian assistance	23-Jul-91			7	MMO	IDA start date differs by two months. Missing end date. Counted as an uncorrected error
Transport of Hostages	Syria	Logistics	01-Aug-91	01-Dec-91	123	3	HIP	
Relief Supplies	Djibouti	Relief	01-Aug-91	01-Aug-91	1	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
Flood Relief	China (PRC)	Relief	01-Aug-91	01-Aug-91	1	5	OHA	DFI dates differ so I filled in the missing end date to give the mission the same duration as the DFI dates indicate, DFI dates are both 9 August, 1991; the JWAC date may be a placeholder. Counted as a corrected error
QUICK LIFT	Zaire	Evacuation	01-Sep-91	01-Sep-91	1	1	NEO	
VICTOR SQUARED	Haiti	Evacuation	01-Sep-91	01-Sep-91	1	1	NEO	Stand-by NEO for Haiti.
Relief Supplies	Russia	Relief	01-Sep-91	01-Oct-91	31	5	OHA	
Delivery of Food to FSU by USAFE	Soviet Union	Humanitarian assistance	01-Sep-91	01-Feb-92	154	5	OHA	
BLUE BEAM	Zaire	Logistics	29-Sep-91	01-Oct-91	3	2	SCR	
Medical Supplies	Ukraine	Relief	01-Oct-91	08-Oct-91	8	5	OHA	DFI dates differ so I filled in the missing end date to give the mission the same duration as the DFI dates indicate, DFI dates are 23-30 October, 1991; the JWAC date may be a placeholder. Counted as a corrected error
Angola Army Relief Supplies	Angola	Relief	10-Oct-91	01-Nov-91	23	10	LPO	Airlift of supplies to rebels and govt forces in cantonment area as part of peace accord.
Rescue of C-130 Crew	Canada	Logistics	01-Nov-91	01-Nov-91	1	999	Other	

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
SAFE HAVEN	Haiti	Humanitarian assistance	13-Nov-91			1	NEO	In DFI database this operation streaches over 2 years. Suspect there were a few flights in periods scattered over 1991-1993. Missing end date. Counted as an uncorrected error
Relief Supplies	Liberia	Humanitarian assistance	01-Dec-91	01-Dec-91	1	3	HIP	End date based on DFI information but may count only USAF dates of involvement. Coded as HIP because of on-going civil war. Counted as a corrected error
HURRICANE VAL	U.S.A	Relief	12-Dec-91	13-Dec-91	2	5	OHA	
DESERT FAREWELL	Iraq	Logistics	01-Jan-92			999	Other	Why is this an OOTW mission? Missing end date. Counted as an uncorrected error
PROVIDE HOPE I	Iraq	Humanitarian assistance	01-Feb-92	01-Aug-94	913	3	HIP	Why is this name the same as JWAC #165? They were clearly different missions
PROVIDE HOPE	CIS	Humanitarian Assistance	01-Feb-92	17-Feb-92	17	5	OHA	DFI dates differ so I filled in the missing end date to give the mission the same duration as the DFI dates indicate, DFI dates are 10-26 February, 1992; the JWAC date may be a placeholder. Counted as a corrected error
Earthquake Relief	Turkey	Relief	14-Mar-92	07-Jun-92	86	5	OHA	
Somalia UNOSOM I	Somalia	Humanitarian assistance	01-Apr-92	03-Dec-92	247	3	HIP	
Cots and Sleeping Bags	Bolivia	Relief	01-Apr-92	01-Apr-92	1	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
Humanitarian Relief	El Salvador	Humanitarian assistance	01-Apr-92	01-Apr-92	1	5	OHA	End date based on DFI information but may count only USAF dates of involvement. Counted as a corrected error
Firefighting Equipment Uzbekistan	Uzbekistan	Relief	10-Apr-92	16-Apr-92	7	5	OHA	
Volcanic Eruption	Nicaragua	Humanitarian assistance	16-Apr-92	16-Apr-92	1	5	OHA	DFI dates differ so I filled in the missing JWAC end date to give the mission the same duration as the DFI dates indicate, DFI dates are 1 April, 1992. Counted as a corrected error

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
Military Support to US Embassy Freetown	Sierra Leone	Evacuation	03-May-92	04-May-92	2	1	NEO	
Honduran Army Assistance	Honduras	Civil Affairs	01-Jun-92			999	Other	Missing end date. Counted as an uncorrected error
PROVIDE PROMISE	Bosnia Republic	Humanitarian assistance	01-Jul-92	29-Apr-93	303	3	HIP	DFI dates differ so I filled in the missing JWAC end date to give the mission the same duration as the DFI dates indicate, DFI dates are 3 July 1992 to 1 May 1993. Counted as a corrected error
PROVIDE PROMISE	Croatia	Humanitarian assistance	01-Jul-92				FALSE	JWAC event #105. Not considered because it duplicates JWAC event #25. Counted as an uncorrected error
Medical Evacuation of Children	Belorussia	Evacuation	01-Aug-92			5	OHA	Missing end date. Counted as an uncorrected error
SOUTHERN WATCH	Saudi Arabia	Peace operations	01-Aug-92	15-Apr-95	988	6	NFZ	Start date was modified from 8/27/94 to 8/1/92. Counted as a corrected error
PROVIDE TRANSITION	Angola	Peace operations	01-Aug-92	01-Oct-92	62	10	LPO	
PROVIDE RELIEF	Kenya	Humanitarian assistance	14-Aug-92	19-Jan-93	159	5	OHA	
PROVIDE RELIEF	Somalia	Peace operations	21-Aug-92	28-Feb-93	192	3	HIP	Unsure why this is coded separately from the operation above it
SOUTHERN WATCH	Iraq	Security	22-Aug-92	15-Apr-95	967	6	NFZ	Added end date cutoff of 15-Apr-95 consistent with the last entry in this database. Counted as a corrected error
IMPRESSIVE LIFT	Somalia	Logistics	13-Sep-92	29-Sep-92	17	3	HIP	
Observation	Cambodia	Peace operations	01-Oct-92			11	IP	Missing end date. Counted as an uncorrected error
SUPPORT JUSTICE		Drug interdiction	01-Oct-92			999	Other	Missing end date. Counted as an uncorrected error
Liberia Evacuation	Liberia	Evacuation	23-Oct-92	25-Oct-92	3	1	NEO	
Tajikistan Evacuation	Tadjikistan	Evacuation	25-Oct-92	26-Oct-92	2	1	NEO	
SEA ANGEL II	Bangladesh	Disaster relief	01-Nov-92			5	OHA	Missing end date. Counted as an uncorrected error
Flour	Armenia	Relief	04-Nov-92	11-Nov-92	8	5	OHA	
Flood Relief	Pakistan	Relief	06-Dec-92	20-Dec-92	15	5	OHA	
RESTORE HOPE	Somalia	Humanitarian Assistance	09-Dec-92	04-May-93	147	3	HIP	

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
PROVIDE HOPE II	Russia	Relief	31-Dec-92			5	OHA	Dates don't even come close to overlapping with those of DFI, and this was a USAF operation I believe. Missing end date. Counted as an uncorrected error
UPHOLD DEMOCRACY	Haiti	Peace operations	01-Jan-93			2	SCR	Missing end date. Counted as an uncorrected error
ABLE VIGIL	Haiti	Humanitarian assistance	01-Jan-93			7	MMO	Missing end date. Counted as an uncorrected error
Belgium Troops to Zaire	Zaire	Peace operations	01-Feb-93	05-Feb-93	5	2	SCR	
Lufthansa Hijacking	Canada	Humanitarian assistance	12-Feb-93	12-Feb-93	1	999	Other	
PROVIDE REFUGE	U.S.A.	Humanitarian assistance	13-Feb-93	29-Mar-93	45	7	MMO	
PROVIDE REFUGE	China (PRC)	Evacuation	13-Feb-93	09-Mar-93	25	7	MMO	
Casualty Evacuation	China (PRC)	Evacuation	07-Apr-93	08-Apr-93	2	5	OHA	
DENY FLIGHT	Bosnia Republic	Internal Defense	13-Apr-93	15-Apr-95	733	6	NFZ	Added end date cutoff of 15-Apr-95 consistent with the last entry in this database. Counted as a corrected error
CONTINUE HOPE	Somalia	Internal Defense	01-May-93	31-Mar-94	335	3	HIP	
Airlift of UN Peacekeepers	Cambodia	Logistics	01-May-93	13-May-93	13	11	IP	DFI dates differ so I filled in the missing end date to give the mission the same duration as the DFI dates indicate, DFI dates are 17-29 May, 1993; the JWAC date may be a placeholder. Counts as a corrected error
US Force Redeployment to US	Somalia	Peace operations	22-May-93	25-May-93	4	3	HIP	
UNPROFOR Macedonia	Macedonia	Peace operations	18-Jun-93	15-Apr-95	667	11	IP	Added end date cutoff of 15-Apr-95 consistent with the last entry in this database. Counted as a corrected error
MARITIME GUARD		Peace operations	01-Jul-93			7	MMO	Missing end date. Counted as an uncorrected error
Nepal Flood Relief	Nepal	Relief	22-Jul-93	15-Aug-93	25	5	OHA	
SUPPORT DEMOCRACY	Haiti	Interdiction of sea lanes	01-Oct-93			7	MMO	Missing end date. Counted as an uncorrected error
UN Mission to Haiti	Haiti	Peace operations	01-Oct-93			10	LPO	Missing end date. Counted as an uncorrected error
India Earthquake Relief	India	Relief	04-Oct-93	05-Oct-93	2	5	OHA	
Medical Evacuation of President of Fijian Islands	Fiji	Evacuation	01-Nov-93	01-Nov-93	1	5	OHA	

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
RESTORE HOPE	Iraq	Humanitarian assistance	01-Jan-94	13-Mar-94	72	3	HIP	
Honduras Joint Military Exercises	Honduras	Internal defense	01-Jan-94			999	Other	Missing end date. Counted as an uncorrected error
JOINT TASK FORCE FULL ACCOUNTING OPERATION	Vietnam, Socialist Republic of	Humanitarian assistance	01-Jan-94			999	Other	Missing end date. Counted as an uncorrected error
Transport of Refuges and South Vietnam War Hero	Vietnam, Socialist Republic of	Evacuation	13-Jan-94	15-Jan-94	3	3	HIP	
Burundi Evacuation	Rwanda	Evacuation	10-Apr-94	12-Apr-94	3	1	NEO	
Airlift of Belgian Troops and Equipement	Kenya	Logistics	10-Apr-94	12-Apr-94	3	2	SCR	
Rwanda Relief	Rwanda	Relief	01-May-94			3	HIP	Missing end date. Counted as an uncorrected error
Evacuation of Americans from Unrest in Yemen	Yemen People's Republic	Evacuation	09-May-94	09-May-94	1	1	NEO	DFI dates differ so I filled in the missing end date to give the mission the same duration as the DFI dates indicate, DFI dates are 9 May, 1994; the JWAC date may be a placeholder. Counts as a corrected error
Aid to Liberia	Liberia	Relief	09-May-94			3	HIP	Missing end date. Counted as an uncorrected error
Medical and School Supplies to Laos	Laos	Relief	10-May-94	13-May-94	4	5	OHA	DFI dates differ so I filled in the missing end date to give the mission the same duration as the DFI dates indicate, DFI dates are 1-4 May, 1994. Counts as a corrected error
GTMO	Cuba	Humanitarian assistance	09-Jun-94			7	MMO	Missing end date. Counted as an uncorrected error
OPERATION SUPPORT HOPE	Rwanda	Peace operations	22-Jul-94	07-Oct-94	78	3	HIP	
Restore Jean-Betrand Aristide to Power	Haiti	Peace operations	08-Sep-94			9	INT	Missing end date. Counted as an uncorrected error
Caribbean Community and Common Market Military Personnel Training	U.S.A.	Internal defense	08-Sep-94			999	Other	Missing end date. Counted as an uncorrected error
PROVIDE HOPE IV	Kazakhstan	Relief	01-Oct-94			5	OHA	Missing end date. Counted as an uncorrected error
VIGILANT WARRIOR	Iraq	Peace operations	07-Oct-94	01-Dec-94	56	8	LCR	
DISTANT HAVEN	Surinam	Humanitarian assistance	08-Oct-94			5	OHA	Missing end date. Counted as an uncorrected error

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
Mine Awareness	Cambodia	Internal defense	10-Oct-94			999	Other	Missing end date. Counted as an uncorrected error
Iran Hostage Rescue	Iran	Rescue				1	NEO	This event counted for frequency purposes because the piviot table counts the number of entries in Col A. Dates were incorrect and unresolved. Counted as an uncorrected error
FAST MCSFCO	Somalia	Evacuation					FALSE	JWAC event #6. Identical to JWAC #252. This entry showed start date of 1/5/91, end 1/6/91. Counted as an uncorrected error
Military Police Augmentation	Panama	Foreign internal defense					FALSE	JWAC event #275. Deleted because it showed start date of 1/12/95 and end date of 12/20/89. Counted as uncorrected
Sadat Assassination	Egypt	Evacuation					FALSE	Event #173 in JWAC database. Deleted from count here because it is the same event as #207. And Sadat was killed on October 6--not October 1. Counted as an uncorrected error
SAFE HAVEN	Iraq	Humanitarian assistance					FALSE	JWAC entry #155. Unclear what this is. A one-day mission in *Iraq* two weeks before the war started? JWAC shows start and end dates of 1/1/91. Counted as an uncorrected error
SAFE HAVEN	Panama	Evacuation					FALSE	JWAC event #147, deleted due to lack of information as to nature of event and missing end date. Counted as an uncorrected error
SAFE HARBOR	Haiti	Evacuation					FALSE	JWAC event #101, deleted due to lack of information as to nature of event. Counted as an uncorrected error
PROVIDE PROMISE	Iraq	Humanitarian assistance					FALSE	JWAC event #167. Not used because name uplicates JWAC #25. Counted as an uncorrected error
PONY EXPRESS	Korea, Republic of						FALSE	JWAC event #144, deleted due to lack of information as to nature of event and missing end date. Counted as an uncorrected error
SHARP GUARD	Bosnia Republic	Peace operations					FALSE	JWAC Event #126, duplicates Maritime Guard. Counted as an uncorrected error
ABLE SENTRY	Macedonia	Peace operations					FALSE	JWAC Event #4. Same as UNPROFOR. Counted as an uncorrected error

Operation Name	Country Name	JWAC Primary OP type	Start Date	End Date	Duration	SSC #	SSC Type	Comments
JTF-120	Haiti	Interdiction of sea lanes					FALSE	JWAC event # 12. Same as Operation Support Democracy. Counted as an uncorrected error
# of events containing data:			223	182	182	220	235	

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13. ABSTRACT (Maximum 200 words)

The research for this paper was conducted by the Institute for Defense Analyses for the Office of the Assistant Secretary of Defense (Strategy and Requirements) in support of the Quadrennial Defense Review (QDR). The paper has two objectives. The first is to review the historical record of U.S. military operations, and determine what (if any) patterns can be discerned that could assist in defense planning. The second objective is to review tentative planning factors proposed for use in the QDR on the basis of this information. The critique includes comparison of assumed and observed values, and also an evaluation of the importance and implications of the divergences found, and recommended changes in planning factors based on those results. As part of that effort, the paper identifies, assesses, and in some cases corrects errors found in, existing databases of past military operations. Corrected code books are included in an appendix. The paper should be of interest to analysts undertaking similar work in the future.

14. SUBJECT TERMS
Institute for Defense Analyses, Office of the Secretary of Defense, Quadrennial Defense Review, QDR, historical, U. S. military operations, defense planning, planning factors, Small Scale Contingencies, SSC, Operations Other Than War, OOTW

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